

Techno Economic Viability Report

**Paramesu Biotech
Limited**

(1200 TPD Maize processing unit)

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Executive Summary

Executive Summary

Name of the Company	Paramesu Biotech Ltd.
Date of incorporation	07th September 2011 (name is changed from Paramesu Biotech Private Limited to Paramesh Biotech Limited on 12 th July, 2024)
Constitution	Public Limited Company
Industry	Maize Processing Industry (corn wet milling process)
Nature of activity	Maize Processing
Registered Office	R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313
Brief details on the project	Paramesu Biotech Ltd (PBL) has planned to establish 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor in Narmadapuram, Madhya Pradesh.
Location	Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661.
Estimated project cost	INR 3471.71 Million
Proposed DE ratio	The company has proposed to raise fund through initial public offer from the investor which is major source of funding for the proposed project.
Promoters' Contribution	
Fresh Issues of Shares	INR 3300.00 Million
Internal Accruals	INR 171.71 Million
Land	The Company has acquired 109.80 Acres (444331 Sq.M) leased hold land for the term of ninety-nine years commencing on the 30 th day of August 2024 from MPIDC Regional Office Narmadapuram for total consideration of INR 367.62 million situated at Plot No. A-4, A-5 & A-6, Sector A, Mohasa-Babai Industrial Area, Dist. Narmadapuram, Madhya Pradesh.
Techno-Economic Viability	Yes,

	Subject to the above assessment & Critical Success Factors, various scenarios mentioned in sensitivity analysis, SWOT analysis and Risk analysis, D&B India is of the opinion that the project is technically feasible and commercially viable.
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Brief Background

Shareholding patterns of the company as on 30th September, 2024 is mentioned below:

S.No	Name of the share holder	No of Shares	Share capital	%
	Share holding of promoter			
1	Ananda Swaroop Adavani	86,93,300	4,34,66,500	3.31%
2	Tetali Maniswetha	93,20,000	4,66,00,000	3.55%
3	Tetali Himabindu	73,86,700	3,69,33,500	2.81%
4	Unimark Business Solutions Pvt. Ltd	21,53,33,300	1,07,66,66,500	82.01%
	Total shareholding of Promoters	24,07,33,300	1,20,36,66,500	91.68%
	Shareholding of others			
5	Tetali Krishna Reddy	26,700	1,33,500	0.01%
6	Tetali Satishkumar	1,22,26,700	6,11,33,500	4.66%
7	Tetali Rajasekhar	15,93,300	79,66,500	0.61%
8	Pavuluri Naga Venkata Munidra	13,33,300	66,66,500	0.51%
9	Tetali Madhavi	10,66,700	53,33,500	0.41%
10	Tetali Madhuri	13,33,300	66,66,500	0.51%
11	Tetali Venkata Kishore Reddy	10,66,700	53,33,500	0.41%
12	Tetali Venkata Krishna Reddy	12,00,000	60,00,000	0.46%
13	I Sudha rani	20,00,000	1,00,00,000	0.76%
	Total	26,25,80,000	1,31,29,00,000.00	100.00%

Source: PBL

Project Cost

INR million

Sr No.	Particular	Mar-25	Mar-26	Total
1	Land			0.00
2	Building	187.50	562.50	750.00
3	Plant & Machinery	570.24	1710.73	2280.97
4	Electrical Equipment & Instrumentation	80.05	240.15	320.20
	Total Hard Cost	837.79	2513.38	3351.18
5	Deposits	0.00	10.00	10.00
6	Contingency	25.13	75.40	100.53
7	Pre-Operative & Preliminary Expenses	2.50	7.50	10.00
	Total Soft Cost	27.63	92.90	120.53
8	Margin money for working Capital			0.00
	Total Project Cost	865.43	2606.28	3471.71

Means of Finance

INR Million

Sr. No.	Particular	Mar-25	Mar-26	Total
1	Equity	697.13	2602.87	3300.00
2	Internal Accrual	168.30	3.41	171.71
3	Term Loan	0.00	0.00	0.000
	Total	865.43	2606.28	3471.71

Debt Profile

The Company has availed term loan of INR 250 million for procurement of land and its repayment is already started. However, as land cost is not considered in the project cost, term loan availed for procurement of land is also not included in means of finance.

The broad terms of the existing term loan are as given below:

Nature of borrowing	
Loan Amount	INR 250 million
Interest Rate Proposed	11.00 %
Commercial Operation Date	April 2026
Moratorium	No Moratorium
Repayment Starts	October, 2024
Repayment Period	36 months.

Term Loan repayment schedule

INR million

Particular	Mar-25	Mar-26	Mar-27	Mar-28
Opening Balance	0.00	208.33	125.00	41.67
Addition	250.00	0.00	0.00	0.00
Repayment	41.67	83.33	83.33	41.67
Closing Balance	208.33	125.00	41.67	0.00
Interest	16.04	18.33	9.17	1.15
Repayment %	17%	33%	33%	17%
IDC	16.04	18.33	0.00	0.00
Interest charged to P&L	0.00	0.00	9.17	1.15

The company has obtained term loan from NBFC for purchase of lease hold land and proposed to repay partial loan during the implementation of the project which indicates that largely the project would be funded through fund raised through IPO and internal accruals.

Financial Highlights

Particulars	Unit	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Net Revenue	INR Mn	-	-	8,558.26	9,961.12	10,599.09	11,223.40	11,847.64	11,860.58	11,860.65	11,860.65
% Growth	%				16%	6%	6%	6%	0%	0%	0%
EBITDA	INR Mn	-	-	811.67	1,018.09	1,112.01	1,203.37	1,294.26	1,286.39	1,275.95	1,264.98
EBITDA Margin	%			9.48%	10.22%	10.49%	10.72%	10.92%	10.85%	10.76%	10.67%
Net Profit	INR Mn	-	-	557.97	702.87	760.69	817.63	875.86	861.59	846.59	832.21

Particulars	Unit	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Net Profit Margin	%			6.52%	7.06%	7.18%	7.29%	7.39%	7.26%	7.14%	7.02%
Contribution	INR Mn		-	1,055.18	1,293.27	1,403.75	1,511.58	1,619.14	1,615.93	1,610.11	1,603.99
Contribution Margin	%			12.33%	12.98%	13.24%	13.47%	13.67%	13.62%	13.58%	13.52%
Break-Even Sales	INR Mn			3,288.80	3,305.36	3,356.62	3,423.10	3,495.44	3,540.39	3,587.22	3,636.75
(a) Share capital	INR Mn	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
(b) Reserves and Surplus	INR Mn	-	-	557.97	1,260.84	2,021.53	2,839.16	3,715.03	4,576.62	5,423.20	6,255.41
(c) Internal Cash Accruals		327.59	581.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00
Total Net Worth (TNW)	INR Mn	3,300.00	3,300.00	3,857.97	4,560.84	5,321.53	6,139.16	7,015.03	7,876.62	8,723.20	9,555.41
Secured Loan	INR Mn	208.33	125.00	41.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt-Equity Ratio	Ratio	0.06	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Outside Liabilities (TOL)	INR Mn	291.67	125.00	572.97	607.20	645.15	683.10	721.05	721.05	721.05	721.05
TOL/ TNW	Ratio	0.09	0.04	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08
Cash / Bank Balance	INR Mn	2,686.21	166.67	121.61	718.05	1,528.27	2,396.62	3,323.20	4,336.31	5,335.53	6,320.38
Min DSCR	Ratio		7.78								
Average DSCR	Ratio		11.65								
IRR	%		24.97%								
COC	%		16.00%								
Gap between IRR and CoC	%		8.97%								

Sensitivity Analysis

A sensitivity analysis was carried out to assess the impact of the following scenarios on the major financial parameters.

The summary of sensitivity analysis is provided in the following exhibit:

Scenario	Proposed Project			The Company		
	Average DSCR	Minimum DSCR	IRR	Average DSCR	Minimum DSCR	IRR
Base Case	11.65	7.78	24.97%	4.68	1.79	34.05%
Sales price reduce by 5 %	6.75	4.35	15.81%	3.14	1.49	19.96%
Capacity Utilisation reduce by 5 %	10.55	6.99	23.07%	4.47	1.77	31.96%
Raw material price increase by 5 %	7.92	5.26	18.17%	3.52	1.57	23.43%
Interest rate increase by 2%	11.50	7.65	24.98%	4.53	1.74	33.63%

The sensitivity analysis shows that project IRR and DSCR are more sensitive to reduction in mark up and increment in raw material prices. However, in estimated adverse scenarios, minimum DSCR remains above 1.50 and average DSCR remains above 3.00 which provides comfortable cushion in debt repayment.

Risk Analysis & Mitigation

Key Risks	Risk Carrier	Proposed Mitigation of Risk
Experience & Capability	PBL	The Company is already into the same line of business of maize processing since last few years. Further, the promoters of the Company have around 10 years of experience in the maize processing industry. The Company is already operating 800 TPD plant at R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313 and as informed to D&B, it has achieved capacity utilisation of more than 90 %. The Company is manufacturing value added products along with starch and co products. The Company has established network to procure maize and to sell end products. The Company has executed expansion projects also in the existing unit. Therefore, experience and capability risk is envisaged low for the project. The Company has to ensure recruiting & retaining competent technical staff for smooth operation of the proposed project.
Time Overrun	PBL	PBL had provided D&B India with a detailed implementation schedule. The Company is already in possession of the land for the project. The Company has identified suppliers and received quotations for the plant and machinery and received civil construction estimates. As observed during the site visit, the civil work for the project is yet to be initiated. COD of April 2026 estimated by the Company is achievable provided the Company will obtain all necessary / statutory approvals and permissions in time and would procure all critical plant and machinery as indicated in the implementation schedule. D&B-India advises the Company to strictly adhere to the implementation schedule, obtain necessary approvals, funds, plant and machineries on time to avoid any time over-run.

Key Risks	Risk Carrier	Proposed Mitigation of Risk
Cost Overrun	PBL	D&B-India notes that the project is under implementation, the Company has acquired the land for the proposed project. The Company has identified suppliers and received quotations for plant and machineries and received civil construction estimates from architect. Considering the current status of the project and as per the discussion with the promoters, to take care of cost escalations, a contingency of 3.00% has been considered. In case there is any further cost overrun, the Company needs to infuse additional funds to meet the shortfall.
Technology Risk	PBL	The Company has obtained quotations from reputed suppliers for proposed project. The Company has proposed to deploy existing and established technology for manufacturing the proposed products. The suppliers are having adequate experience and expertise in providing after sales service for identified equipment's.
Operational Risk	PBL	The Company is already into the same line of business of maize processing since last few years. Further, the promoters of the Company have around more than 10 years of experience in the maize processing industry. The project location is well connected through roads, railways, market, communication, power and water resources and has availability of the required technical, managerial, as well as skilled and unskilled manpower for implementation and subsequent operations of the project.
Raw Material Availability		The Company is using maize as a key raw material for the existing operations of the Company and the same raw material is proposed to be used for the proposed project. The Company is currently sourcing maize from farmers and mandis (traders) located near the plant & from nearby regions. It has network of maize suppliers for existing unit.

Key Risks	Risk Carrier	Proposed Mitigation of Risk
	PBL	The project is proposed in Madhya Pradesh which is different state and therefore, the company has to set up new network for procurement of maize. Madhya Pradesh is second largest producer of maize, therefore maize availability is not a challenge. Considering increasing demand for maize from other industries and maize processing units, the Company has to work out procurement strategy to ensure timely purchase of quality maize. India is amongst the top ten maize producers in the world, contributing to nearly 2 to 3% of global maize production. The country is also one of the key exporters of maize, ranked among the top 5 global exporters. Domestically, maize production accounts for 9% of the total food grain production in India. This makes it the third most grown food grain in India, after rice and wheat. The prices of key raw materials have been volatile. Increase in cost of raw material has an impact on the profitability of the Company. The same has been captured in terms of sensitivity analysis where it can be seen that even with an increase of 5% in costs of raw material, the project DSCR will be above 1. Moreover, the end product prices generally move in tandem with the raw material price and the industry is able to pass on the price hike, albeit, with a time lag.
Demand / Off take Risk	PBL	Industrial applications, which includes production of starch and additives for food processing industry, is the second largest usage of maize in the country. Globally more than half of starch produced is converted into different derivatives which are in turn used as food additives. In US and EU region which has a well-developed food processing industry this proportion is as high as 60%. In India too, food processing sector forms the largest consumer of starch derivatives; its share estimated to be close 50%, lower than global average. Demand for starch derivatives in the country is driven primary by food processing sector. In food processing sector starch derivatives is used in infant foods, instant foods, confectionary, bakery products,

Key Risks	Risk Carrier	Proposed Mitigation of Risk
		and other processed foods. Apart from food starch derivatives are also used in pharmaceutical preparations as additives. The promoters of the Company have around more than 10 years of experience in the maize processing industry. As the Company is already into the same line of business, it has existing set of customers, whom it intends to supply the finished goods from the proposed project. The proposed capacity utilization levels are critical to the project so in order to achieve the same, the Company has to make proper marketing arrangements to maintain the regular off-take of finished products. As the Company is expanding the capacity by 1200 TPD as against the existing capacity of 800 TPD of maize crushing.
Pricing level and sustainability	PBL	The finished goods price level has been considered at current market level basis the existing industry condition and based on the existing operations information shared by the Company. Further, the downside impact, if any, on the pricing level or capacity utilization of the proposed Project has been captured in terms of Sensitivity Analysis section of this report. The Company has to maintain adequate price level to meet the projected revenue.
Statutory Approvals	PBL	The Company has planned to obtain all relevant approvals at appropriate stages as per the requirement. Detailed note on the status of Statutory Approvals has been provided in the Technical Section of this report. D&B India, advises the Company to complete the process in timely manner to avoid any adverse impact on project.
Foreign Exchange Fluctuation	PBL	The Company will import plant and machinery for production process and will also sell the finished products in the international markets so unfavorable fluctuation in exchange rate may affect the Company. The Company may consider entering into appropriate forward contracts as required and hedge its position to mitigate the risk.

Key Risks	Risk Carrier	Proposed Mitigation of Risk
Force Majeure Risk	PBL /Insurers	The Company needs to take adequate insurance cover for insurable Force Majeure risks.

SWOT Analysis

Strength	Weakness
- The Company is already into the same line of business of maize processing since last few years. Further, the promoters of the Company have around more than 10 years of experience in the maize processing industry. - The project is proposed in Madhya Pradesh which is second largest producer of Maize. - The technology selected is well proven technology for the production process. - As the Company is already into the same line of business, it has existing set of customers, whom it intends to supply the finished goods from the proposed project and as well existing raw material suppliers.	The price of the primary raw materials, an agricultural produce and a major cost element, is volatile and depends upon factors such as rain & demand-supply. <i>However, increment in raw material prices can be passed on to end uses, thus the impact of any adverse movement in raw material prices are expected to largely offset in due course of time.</i>
Opportunity	Threat
India is amongst the top ten maize producers in the world, contributing to nearly 2 to 3% of global maize production. The country is also one of the key exporters of maize, ranked among the top 5 global exporters. Domestically, maize production accounts for 9% of the total food grain production in India. This makes it the third most grown food grain in India, after rice and wheat.	- The generic threat of economic slowdown exists, which may subdue the domestic demand for the products. - Capacity additions by other players, or new entrants in the area, may lead to increased competition. - Increasing usage of maize in other industries like ethanol may impact availability of maize and in turn prices of maize.

- According to Ministry of Agriculture & Farmers Welfare, annual maize production in India is estimated to be 32.4 million tons in FY 2022. Annual production increased by a CAGR of nearly 5% during the last five years (FY 2017-22).
- Industrial applications, which includes production of starch and additives for food processing industry, is the second largest usage of maize in the country. Globally more than half of starch produced is converted into different derivatives which are in turn used as food additives. In US and EU region which has a well-developed food processing industry this proportion is as high as 60%.
- In India too, food processing sector forms the largest consumer of starch derivatives; its share estimated to be close 50%, lower than global average. Demand for starch derivatives in the country is driven primary by food processing sector. In food processing sector starch derivatives is used in infant foods, instant foods, confectionary, bakery products, and other processed foods. Apart from food starch derivatives are also used in pharmaceutical preparations as additives.
- Nearly 60% of the maize consumed in the country is accounted by feed industry, while about 20% is consumed for industrial purposes (including manufacturing of food & beverage products). Thus, these two end use segments have the biggest influence over the maize demand pattern in the country. India's compound feed industry has been growing by 5 to 7% per annum, over the past few years. Demand growth is driven by poultry, dairy, and aqua feed.
- As per a study the per capita animal protein consumption in India has increased by nearly 82%

between 1980 and 2013. Increasing affluence and changing food consumption pattern are two of the several factors that are driving animal protein consumption in India.

- According to industry estimates, the consumption of maize is set to touch nearly 44 million tons by FY 2025, up from the current level of nearly 28.5 million tons. The biggest demand would come from the feed sector. The demand for animal protein is increasing at a faster rate, and to meet this demand animal husbandry industry needs to raise its yield.
- Maize starch exports from India witnessed a strong increase in the past couple of years, after a drastic drop in FY 2020. Annual volume of exports reached a record high of nearly 529,000 tons in FY 2022. Aggressive growth in exports to Indonesia and Malaysia have played a major role in increasing overall maize starch exports from India. The combined volume of maize starch exported to Indonesia and Malaysia in FY 2021 and FY 2022 was nearly 240,000 tons and 359,000 tons respectively. In both the years, this accounted for 65 – 70% of total volume of maize starch exported from India.

Conclusion

Please refer to page no 171

Report

Scope of Work

M/s. Paramesu Biotech Limited (PBL) has appointed D&B India for assessing the technical, commercial and financial viability of the proposed 1200 TPD maize processing unit at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661. The study would be assessing the techno economic viability of the proposed project through a detailed techno financial analysis of the proposed venture and evaluation of the constraints and future potential.

The scope of work was finalized as under:

- D&B India will physically visit the proposed location
- D&B India will validate the cost of the proposed project, given the specifications on civil works, building and plant and machinery
- D&B India will validate the cost and revenue assumptions related to the proposed project
- D&B India will analyze the revenue and cost estimates for the proposed project. Various tools, such as debt service coverage ratio, IRR, sensitivity analysis will be used to arrive at a conclusion on the viability of the project

Date of Inspection

D&B has carried out site visit to proposed project location at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661 on 14th September, 2024 to understand current status of the project on the site and to existing unit of the Company at R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313 on 16th September, 2024 to understand operation of existing unit.

Team for Inspection

The Team of Consultants who have worked on the project has been mentioned below (in alphabetical order) –

Mr. Ajaysingh Rajput

Mr. Rajiv Korgaonkar

Mr. Samir Yeshvikar

Methodology

The techno-economical viability study assigned to D&B India was carried out in the following sequence:

1. Verification of the documents provided by the client, identification of missing information, and requesting for the revised list of documents required from the client.
2. Visit to the proposed project site and existing manufacturing unit of the Company.
3. Vetting of quotations & assessment of the project cost reasonableness for the proposed project
4. Assessment of revenue and cost estimates of the project
5. The technical assessment comprised of review of the proposed plot layout, building plan, plant and machinery and other related aspects
6. Secondary research to understand industry specific benchmarks
7. Assessment of financial projection and to derive various financial ratios to assess viability of the financial project.
8. To carry out sensitivity analysis & SWOT analysis and to identify risk & its mitigation pertaining to the project

Project Overview

Paramesu Biotech limited (PBL) is planning to establish 1200 TPD Maize Processing Plant to produce Maize Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661.

Presently the Company is engaged in manufacturing of maize starch to process 2,80,000 TPA Maize to manufacture starch, modified starches & byproducts along with value added products namely liquid glucose and Maltodextrin powder which is used in Food, Paper Industry, Textile Industry and Pharma sectors, Adhesives and other industrial applications etc. The plant is situated at R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313 near Rajahmundry. As informed by the Company, capacity utilisation of the existing unit has reached to optimum level and therefore, an expansion project is planned. Considering availability of maize in Madhya Pradesh, the Company has proposed the project in Madhya Pradesh.

Company Background

Paramesu Biotech Limited

Brief of the Company is as mentioned in the table below:

Company Details	
Name	Paramesu Biotech Limited
Date of Incorporation	07 th h September 2011 (name is changed from Paramesu Biotech Private Limited to Paramesh Biotech Limited on 12 th July, 2024)
Constitution	Public Limited Company
Sector	Maize Processing Industry (Corn wet milling process)
Registered Office	R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313
Proposed Plant Site	Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661.

Shareholding Pattern

Shareholding patterns of the company as on 30th September, 2024 is mentioned below:

S.No	Name of the share holder	No of Shares	Share capital	%
	Share holding of promoter			
1	Ananda Swaroop Adavani	86,93,300	4,34,66,500	3.31%
2	Tetali Maniswetha	93,20,000	4,66,00,000	3.55%
3	Tetali Himabindu	73,86,700	3,69,33,500	2.81%
4	Unimark Business Solutions Pvt. Ltd	21,53,33,300	1,07,66,66,500	82.01%
	Total shareholding of Promoters	24,07,33,300	1,20,36,66,500	91.68%
	Shareholding of others			
5	Tetali Krishna Reddy	26,700	1,33,500	0.01%

6	Tetali Satishkumar	1,22,26,700	6,11,33,500	4.66%
7	Tetali Rajasekhar	15,93,300	79,66,500	0.61%
8	Pavuluri Naga Venkata Munidra	13,33,300	66,66,500	0.51%
9	Tetali Madhavi	10,66,700	53,33,500	0.41%
10	Tetali Madhuri	13,33,300	66,66,500	0.51%
11	Tetali Venkata Kishore Reddy	10,66,700	53,33,500	0.41%
12	Tetali Venkata Krishna Reddy	12,00,000	60,00,000	0.46%
13	I Sudha rani	20,00,000	1,00,00,000	0.76%
	Total	26,25,80,000	1,31,29,00,000.00	100.00%

Source: PBL

Directors & Key Management Personnel

Profiles of directors & key management personnel is mentioned below as provided by the Company:

Ananda Swaroop Adavani

He is Managing Director of the Company is an MBA specialized in Human Resource and Operations Management from Symbiosis Institute of Business Management - Pune, and also holds a Masters in Computer Application from Andhra University. He has over five years of experience in organizations like Bharti AXA General Insurance, Dabur India Ltd. and Triumphant Institute of Management Education Pvt. Ltd., where he managed various activities pertaining to human resources and quantitative analysis. He also had a short stint with Larsen & Toubro India Ltd. for reviewing and designing parts of their performance management system. He has been associated with Bharti AXA for almost two and a half years, and was Corporate Manager – Sales HR. He was handling the HR aspects of all the factories of Dabur India Ltd at the corporate office level. Ananda's areas of expertise include Industrial Relations, Manpower Optimization based on Time-Motion Study, Recruitment, Performance Management System, Training & Development – sales and industrial training, Compensation, and Employee Cost-Revenue & Productivity Analyses. He is also experienced in setting up operations for a start-up which he gained in his stint with Bharti-AXA General Insurance.

Mrs. Mani Swetha Tetali

Mrs. Mani Swetha Tetali is an Whole Time Director of the Company is an MBA from specialized in Human Resource and Operations Management from Symbiosis Institute of Business Management - Pune and a Engineering Graduate

from Andhra University. She has a prior work experience as a HR Manager in MNCs (Wipro and HCL). Her areas of expertise include performance management systems, compensation and employee cost revenue and productivity.

Past financial of the Company are mentioned below:

Profitability

INR Mn

Sr. No.	Particulars	Mar-21	Mar-22	Mar-23	Mar-24
		Actual	Actual	Actual	Actual
A	REVENUE				
	Revenue from Operations	2,619.48	4,939.98	6,227.85	6,278.47
	Other Income	27.93	26.06	25.59	14.38
	Total Revenue	2,647.40	4,966.03	6,253.44	6,292.85
B	EXPENDITURE				
	Cost of materials consumed	1,999.80	3,527.19	4,315.04	4,641.70
	Purchase of Stock-in-trade	-	210.37	720.26	196.87
	Changes in inventories	-10.30	-3.22	2.64	-50.98
	Employee benefit expenses	79.90	116.27	139.84	167.26
	Other manufacturing expenses	192.80	229.57	285.33	327.04
	Cost of Goods Sold	2,262.19	4,080.17	5,463.11	5,281.89
	Admin and selling expenses	106.42	271.38	208.91	231.13
C	Cost of Sales	2,368.62	4,351.55	5,672.02	5,513.02
D	EBITDA	278.78	614.48	581.42	779.83
	Depreciation and amortization	51.61	53.81	55.71	83.01
	Finance Cost	108.59	100.61	85.50	152.55
E	PBT	118.59	460.06	440.20	544.27
	Less : Current Tax	14.18	108.69	105.54	99.76
	Less : Deferred Tax	14.72	11.71	9.43	41.14
F	PAT	89.69	339.66	325.23	403.37

Balance sheet

INR Mn

Sr. No.	Particulars	Mar-21	Mar-22	Mar-23	Mar-24
		Actual	Actual	Actual	Actual
	<u>EQUITY & LIABILITIES</u>				
A	Shareholder's Fund				
	Share capital	196.94	262.58	262.58	262.58
	Reserves and Surplus	208.44	482.46	807.69	1,468.65
B	Non-Current liabilities				
	Long term borrowings	467.00	413.72	887.69	1,013.37
	Deferred tax liabilities	77.23	88.94	98.37	136.80
	Other Long-term liabilities	304.50	-	-	
	Long-term provisions	6.40	8.75	14.22	19.93
C	CURRENT LIABILITIES				
	Short term borrowings	727.22	406.07	517.95	1,045.47
	Trade payables - MSE	0.44	24.29	25.94	118.30
	Trade payables - Others	60.82	354.50	257.06	258.76
	Other Current Liabilities	15.47	22.89	26.59	69.21
	Short term provisions	54.96	160.42	124.56	3.73
	TOTAL	2,119.40	2,224.61	3,022.65	4,396.80
	<u>ASSET</u>				
D	PP&E				
	Tangible Assets	1,006.91	976.83	948.20	2,416.24
	Capital Wip	1.97	28.66	659.76	238.89
	Investment properties				
	Right-of-use assets				
	Intangible Assets				
E	NON CURRENT ASSET				
	Investment				
	Long term loans and advances	23.23	25.66	29.09	35.54
	Deferred tax assets				
	Other non-current assets				

Sr. No.	Particulars	Mar-21	Mar-22	Mar-23	Mar-24
		Actual	Actual	Actual	Actual
F	CURRENT ASSET				
	Inventories	709.17	599.20	595.53	996.13
	Trade receivables	239.61	346.90	481.66	562.84
	Cash and Cash equivalents	0.45	3.85	1.41	24.95
	Short term loans and advances	40.58	64.97	148.97	0.15
	Other Current Assets	97.49	178.55	158.04	122.06
	TOTAL APPLICATION OF FUNDS	2,119.40	2,224.61	3,022.65	4,396.80

Technical Assessment

Project Configuration

Paramesu Biotech Ltd (PBL) is planning to establish 1200 TPD Maize based specialty products Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661.

- Main Products
 - Maize Starch
- Co products
 - Germs
 - Fiber
 - Gluten
 - Corn Steep Liquor

Product Portfolio –

- **Main Products**
 - **Maize Starch** - is extracted from the endosperm of the corn kernel. It's a versatile ingredient used in cooking to thicken sauces, soups, and gravies. Industrially, it's used in the production of adhesives, paper products, and textiles. Corn starch is also a key ingredient in making corn syrup and other sugars.
- **Co products**
 - **Germs** - The germ is the part of the corn kernel that can develop into a new plant. It's rich in polyunsaturated fats, vitamins, and minerals. Corn germ is often used to extract corn oil, which is a valuable product in both the food and industrial sectors. The remaining germ meal is used as animal feed due to its high nutritional value.
 - **Fiber** - Corn fiber is primarily composed of the seed coat and remaining endosperm after the extraction of starch, gluten, and germ. It contains a mix of protein, starch, and fiber, making it

suitable for animal feed. Corn fiber is predominantly insoluble, including types like hemicellulose, cellulose, and lignin.

- **Gluten** - Corn gluten is a co product of corn processing and is primarily composed of proteins like zein and glutelin. Despite its name, corn gluten does not contain the same type of gluten found in wheat, barley, or rye, making it safe for those with gluten sensitivities. It's often used in animal feed and as a natural herbicide.
- **Corn Steep Liquor** - Corn steep liquor (CSL) is a co product of the corn wet-milling process. It's viscous liquid rich in amino acids, vitamins, and minerals. CSL is used as a nutrient source in microbial fermentation processes and as a high-protein, high-energy feed ingredient.

Corn contain 65 to 70 % starch. The Company has proposed extraction of various component from maize as tabulated below based on their experience of operating corn processing unit at Rajahmundry.

Product	Standard Yields	Std Production @ 100 % Capacity	% Of Production
Starch	67.00%	804	68.37%
Total Startches	67.00%	804	68.37%
Germes	6.50%	78	6.63%
Fibre	10.00%	120	10.20%
Gluten	4.50%	54	4.59%
Csl	10.00%	120	10.20%
Total Co products	31.00%	372	31.63%
Total	98.00%	1176	100%

Land Details

The Company has acquired 109.80 Acres leased hold land for the term of ninety-nine years commencing on the 30th day of August 2024 from MPIDC Regional Office Narmadapuram for total consideration of INR 367.62 million situated at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist. Narmadapuram, MP.

S r. N o.	Pl ot N o.	Doc. No/ Date	Land Type	Lessor	Lessee	Address	Lease Period	Charges * (INR)	Area		Land Boundaries			
									Sq. Mtr.	Ac res	East	West	North	South
I	A-4, A-5 & A-6	MPI69782024 AI1082050 Dtd: 30-08-2024	Industrial	MPIDC Regional Office Narmadapuram	M/s. Paramesu Biotech Limited	Mohasa-Babai, Dist. Narmadapuram, MP	99 Years	37,80,13,054.00	4,44,331.00	109.80	Pvt. Land	Road	Plot No. A-3	Plot No. A-7
Total								37,80,13,054.00	4,44,331.00	109.80				

*Charges - Land Premium + Development Charges + Stamp Duty + Registration charges

Land Allotment - MP Industrial Development Corporation Ltd has allotted land parcel of area admeasuring 4,44,331 Sq. Mt. (44.433 Hect.) situated at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist. Narmadapuram, MP for amount deposited of INR 34,69,54,856.00 to M/s. Paramesu Biotech Limited. (Ref - MPIDC/RO/Narmadapuram/2024/346 Dtd. 29-08-2024)

Land Allotment Letter:

MPIDC
M.P. Industrial
Development Corporation Ltd.
(A Government of M.P. Undertaking)
Regional Office, Narmadapuram (M.P.)

ALLOTMENT LETTER

No./MPIDC/RO/Narmadapuram/2024/ 346 Dated : 29/08/2024

To,
Mr. Ananda Swaroop Adevani ,
Managing Director
M/s Paramesu Biotech Limited
R5 No. 972, 3rd KM Gopalapuram Road ,
Deverapalli , Distt- East Godavari Andhra Pradesh

Subject : Proposal for allotment of land Plot no. A-4, A-5 & A-6 Area 444331 Sqm (44.433 Hect.) in
I/A Mohasa-Babal, District Narmadapuram, (Madhya Pradesh)

Ref. : Letter of Intent No. MPIDC/RO/ Narmadapuram/2024/ 284 Dated 09-07-2024

Sir/Madam,
We are in receipt of your acceptance of the terms and conditions of letter of intent and amount
deposited vide Invoice No. 6534 Dated : 28-08-2024 for Rs. 34,69,54,856/-

We are pleased to allot you Plot no. A-4, A-5 & A-6 in I/A Mohasa-Babal, Approx 444331 Sqm. area of
land Being i.e. 44.433 Hect. at I/A Mohasa-Babal, District Narmadapuram, Madhya Pradesh
You are requested to:-

Execute the lease deed in enclosed format and register the same within 60 days, all costs
and expense incurred or which may be incurred for preparation, execution and
registration of the lease deed, shall be borne and paid by you. You shall be required to
deposit certified copy of the lease deed with this office duly registered.

Take possession of the land within a period of seven days after completion of the
formalities as at (1) above. If you fails to take possession within stipulated time it will be
presumed that possession is taken on the Date of execution of lease deed.

Please note that in case you fail to fulfill the formalities/ conditions as at (i) and above
within the stipulated period shown as above, this allotment letter shall stand cancelled
and forfeiture or refund, if any, shall be governed by the Madhya Pradesh Rajya Audyogik
Bhumi Evam Bhawan Prabandhan Niyam-2019 (Amended as on 2022).

Enc:- Lease Deed Format


Executive Director

GSTIN : 23AACCM6000DEZH CIN No. : U8102MP1977SGC001292

Temp. Add: Ist Floor, E-3, MPIDC - RO Narmadapuram
Tawa Complex, Bittan Market, E-6, Aera Colony,
Bhopal - 16, Phone : (0) +917552420091-2-3

ed.romard@mpidc.co.in investmp.gov.in

Land Utilization – The Company has acquired 109.80 acres of leased land, with 17.34 acres allocated for the development of a proposed 1200 TPD Maize Processing Plant.

Development plan for remaining 91.75 acres of land is awaited from the company.

Land Details Details			
Sr. No.	Particular	Area in Sq. Mt	Area in Acres
1	Total Site Area	4,41,466.52	109.09
2	Raw Material Godown Shed	7,895.07	1.95
3	Boiler Fuel Shed	6,601.56	1.63
4	Byproducts Packing & Godown	9,749.16	2.41

Land Details Details			
Sr. No.	Particular	Area in Sq. Mt	Area in Acres
5	Starch And Byproducts Godown	9,749.16	2.41
6	Starch Packing and Godown	11,353.96	2.81
7	Starch Main Block		-
8	Ground	6,684.46	1.65
9	First	3,559.08	0.88
10	Second	321.12	0.08
11	Water Tank	100.00	0.02
12	Office Block	393.22	0.10
13	Canteen	250.00	0.06
14	Steeping Vats	676.46	0.17
15	Silo's	3,427.72	0.85
16	Workers Shed	1,960.56	0.48
17	Toilet Blocks	379.90	0.09
18	Boiler	7,057.27	1.74
19	Total Plinth Area	70,158.70	17.34
Source: PBL			

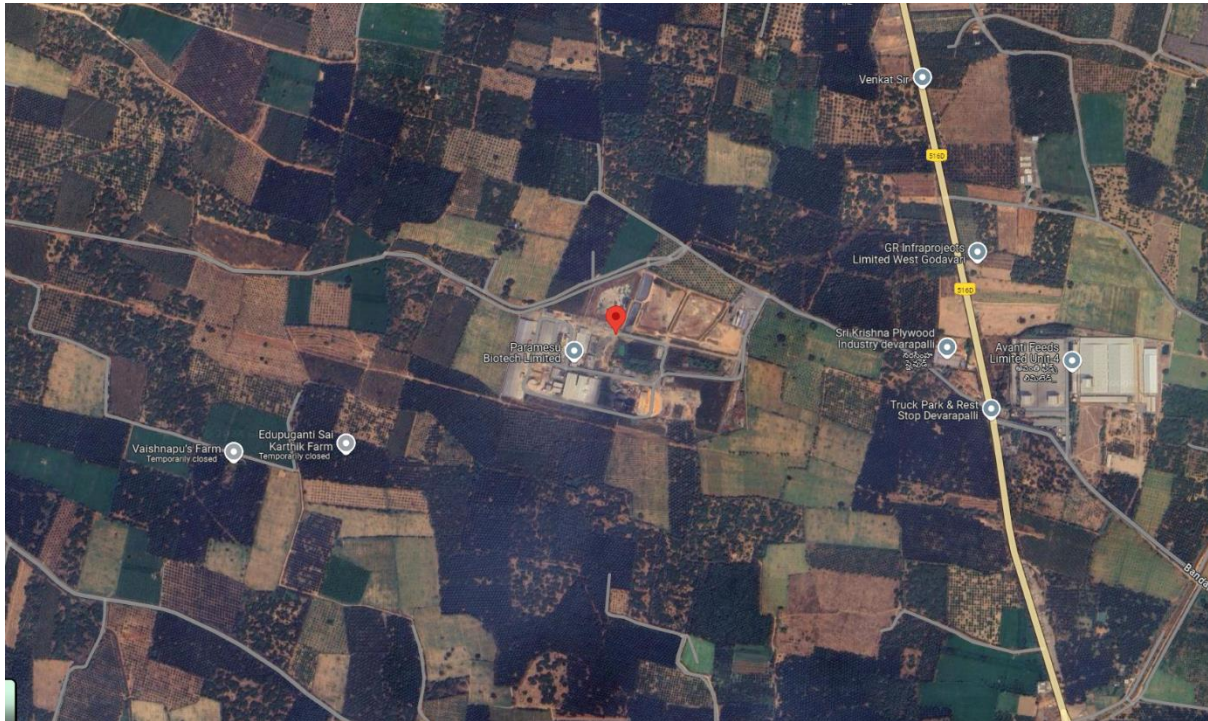
Project Location

Existing Unit:

Existing unit of the company is located at R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313.

Details of location and connectivity are provided below:

Google Co-ordinates: 17°03'54.5"N 81°32'31.9"E



Access:

Air:

The nearest Airport to the subject location is Rajahmundry Airport, Andhra Pradesh which is around 37.6 KM away from the subject location.

Road:

The subject plot is situated along Internal village road which emanates from Devarapalli Rd Road which is around 50M from the subject location. 3 kms from national highway

Rail:

The nearest railway station to reach the subject location is Pasivedala railway station, which is around **22.6 KM** away. The nearest major railway station is chagallu, which is around **24 KM** away from the subject location.

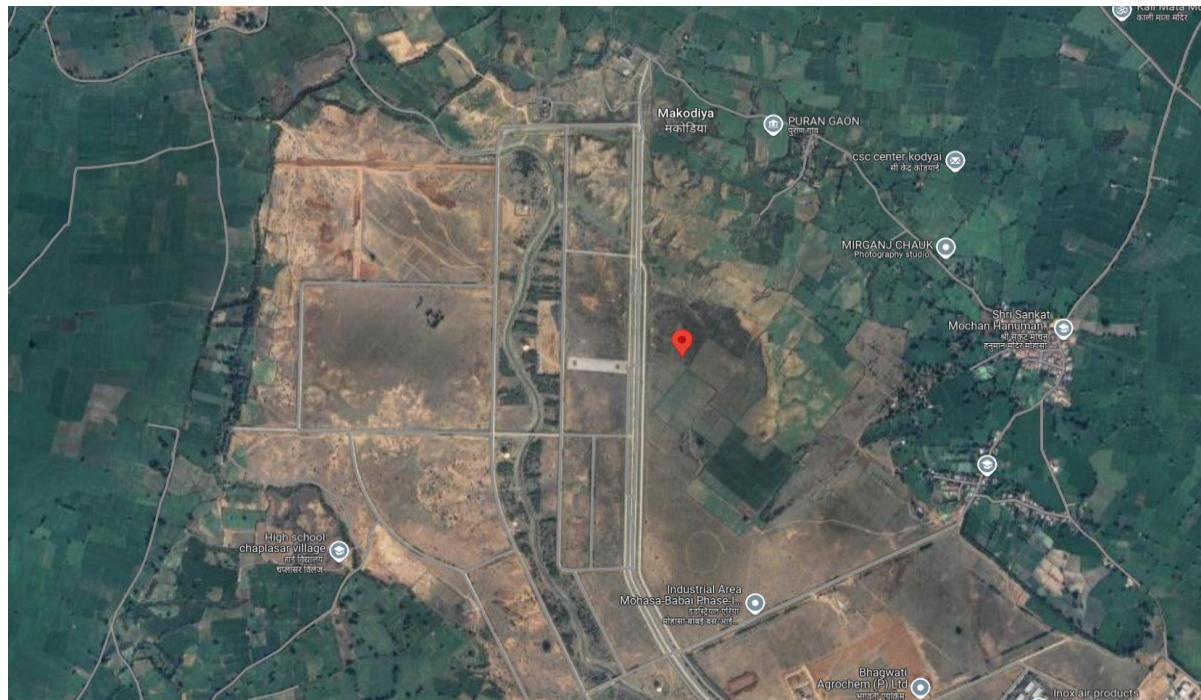
The Unit is well connected which helps the company to procure raw material and transport end products.

Proposed Unit

The Company has acquired land in MPIDC Mohasa-Babai, Dist. Narmadapuram, MP.

Details and connectivity of the location & land is provided below:

Google Co-ordinates: 22°46'21.0"N 77°50'01.5"E



Access:

Air:

The nearest Airport to the subject location is Raja Bhoj International Airport, Bhopal which is around 97.1 KM away from the subject location.

Road:

The subject plot is situated along Internal village road which emanates from NH 46 Road which is around 146M from the subject location.

Rail:

The nearest railway station to reach the subject location is Budni railway station, which is around 23.5 KM away. The nearest major railway station is Powerkheda, which is around 28.8 KM away from the subject location.

Location of the proposed unit is well connected for procurement of raw material and transport finished goods.

Various incentives available at proposed location are listed below:

The Incentives available under IPP, 2014 (As amended 2019)

1. The cap of limiting the incentive to 100% of investment is removed.
2. Basic Investment Assistance Subsidy (BIPA) of **40%** on eligible investment reimbursable in 7 annual instalments. **Food Processing Multiple of 1.5 shall be applicable on BIPA as provided in IPP.** Also, all the other multiples viz. Geographical Multiple, Export Multiple and Employment Multiple will be applicable on BIPA as in IPP.
3. Capital subsidy of 50% for setting up ZLD upto INR 10 million.
4. Concessional power tariff/energy charge waiver of Rs 1 per unit shall be provided for 7 years from the date of commencement of commercial production. This shall be provided over and above any rebate provided by MPERC and shall be applicable to overall electricity units consumption (not just incremental consumption as in the case of MPERC rebate).
5. 100% Exemption/Reimbursement of Electricity Duty shall be provided to unit for a period of 7 years from the date of commencement of commercial production.
6. 100% Exemption/Reimbursement of Mandi Fees shall be provided to unit for a period of 8 years from the date of commencement of commercial production.

Cabinet Committee on Investment Promotion (CCIP) –

CCIP has been constituted with Chief Minister as Chairman and Ministers of Finance, Commercial Taxes and Department of Industrial Policy and Investment Promotion as members. The CCIP has

authority to deal with all issues relating to Industrial promotion. The CCIP is fully empowered to sanction a customized package of assistance beyond what has been explicitly provided in this policy. Such packages shall be available only to Mega Scale Industrial Units.

Our proposed project in MP covered under Mega Scale Industrial Units so, company has option to sought the specific incentive schemes apart from the above so, we have applied for the same and waiting for the cabinet committed approval

Site visit

Existing Unit –

Existing unit site visit was conducted by Mr. Snehal Gundala and Mr. Samir Yeshvikar on 16th September 2024. Mr. Manikumar – Project Manager, Mr. Satya Suresh – Chief Financial Officer and Mr. Sheshadri – Finance Dept from PBL team has accompanied for site visit discussion.

Following are observations during site visit -

- The factory has been operational for a decade.
- Initially established as a Greenfield project, it occupies 37.72 acres of land. The company's total land ownership is approximately 60.28 acres.
- The factory began with a Maize Crushing capacity of 160 TPD and has since expanded to nearly 800 TPD.
- The first expansion occurred in 2018, and as of 2023–24, they have achieved a capacity of 800 TPD. Further expansion projects are underway to increase starch production.
- According to information provided by company officials, the process will require approximately 1,656 cubic meters of water per day.
- The existing facility manufactures 366 TPD of starch, 40 TPD of modified starch, 100 TPD of liquid glucose, and 30 TPD of MDP. Co products include 52 TPD of germs, 80 TPD of fiber, 36 TPD of gluten, and 80 TPD of CSL.
- The entire factory site has been inspected according to the process flow, from the raw material storage godown to the starch drying and packing unit. Most of the RCC structured buildings are about a decade old, with some steel structures which required repairs, maintenance, or replacement.
- Raw material storage for corn is stored in house godowns and other places within the same premises. The company has its own storage silo with a capacity of 20,000 MT, Bucket conveyors are being fabricated onsite.
- The steeping vats are made of cement concrete, and unloading from rotary valves is done manually by operators. In the new project, these operations will be automated. The layout of the main process buildings and equipment is designed to synchronize with the flow of material in and out.
- The main process block building contains seven-stage compartmental tanks, corn primary grinding, washing and dewatering, nozzle centrifuges, hydrocyclones, and separating equipment like filters and screens. The germ and fiber filter press, rotary filters, and tube bundle dryers are in adjacent buildings with proper exits for dispatching finished goods.

- The corn steep liquor evaporators are placed in a separate steel and RCC open structure, with storage tanks adjacent to it. The gluten drying and auto-packing unit are in a separate building. The milk of starch is sent to another building with drum filters and screw conveyors leading to the spin flash dryer for starch. The dryer unit includes auto-packing for up to 1-ton bags with an auto palletizer system. The finished goods starch godown is adjacent, with loading capabilities of up to 48 tons.
- Liquid glucose, modified starch, and maltodextrin powder derivatives are manufactured, filled, packed, and dispatched from a separate building. Each process building contains a control room with a DCS system.
- The new plant will have an integrated single control room for all processes. The process laboratory is in the main building and is equipped with all necessary equipment.
- The main admin building houses all departmental offices, along with the MD and Chairman's office and a conference room. Adjacent to the admin block there is staff and workers' canteen.
- The sulfur storage and SO₂ converter are placed in a separate shed building, approximately 300-400 meters away from the main process building.
- The boiler is situated towards the southeast of the layout, with the husk and coal storage shed adjacent to it.
- The ETP and solid sludge treatment are on the east side of the road.
- Internal roads and material movement are well-planned. Overall operations are handled efficiently. However, there are not many safety posters or assembly points (in case of emergency) observed.
- The effluent generated, mainly from evaporated condensates, amounts to approximately 900 cubic meters. Solid waste is minimal and undergoes treatment before being sent for land filling.
- The company's promoters have prior experience in trading maize and agro commodities.

Additional points shared by company officials:

- Over the past 10 years, the company has never faced shutdowns due to raw material unavailability.
- Currently, they have a silo containing about approx. 10,000 metric tons (MT) of stock, sufficient for production until mid-October.
- Maintenance of silo is underway and another dryer for starch is being installed. This decision is influenced by market fluctuations in demand and prices for Liquid Glucose and other derivatives.
- These crops are expected to arrive by the end of September, and fumigation of the Godowns is in progress.
- The company strategically plans to establish a new plant in Madhya Pradesh, given that MP is the second-largest maize producer in India, with nearby markets in Gujarat and Maharashtra.
- The company limits exports to 25% to cater primarily to existing local customers, who have also experienced significant growth over the past decade.

- The company is one of the largest suppliers of CSL for aqua feed which is sold in the vicinity of the existing unit. Starch demand in the Textiles, Adhesives (Gujarat target) and Food have increased tremendously. So, meet the demand and become a major player in this industry the company has decided to put up a 1200 TPD unit in MP.

Site Photographs:



Main Admin Building



Maize Storage Godown



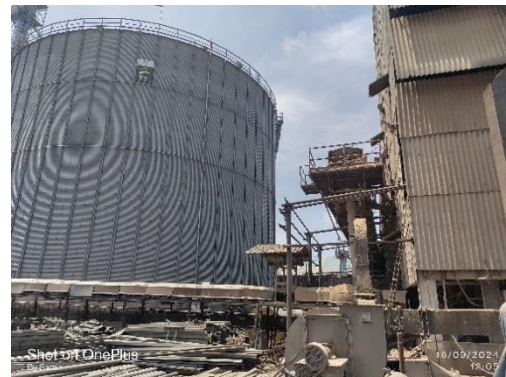
Fumigation under Progress



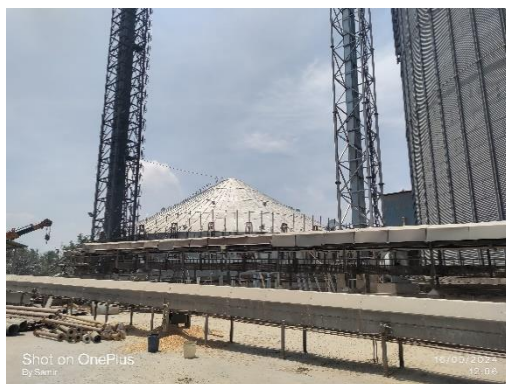
Maize Storage Silo



Feed Conveyor to Maize Cleaning



Conveyor from Maize Cleaning Vibrosifter



Feed Conveyor to Plant



Corn Steeping Vats



Steeped Corn



Corn Grinder



Crushed Corn



Germ Separator – Alfa Laval Nozzle Centrifuge



Gluten-Starch Separators



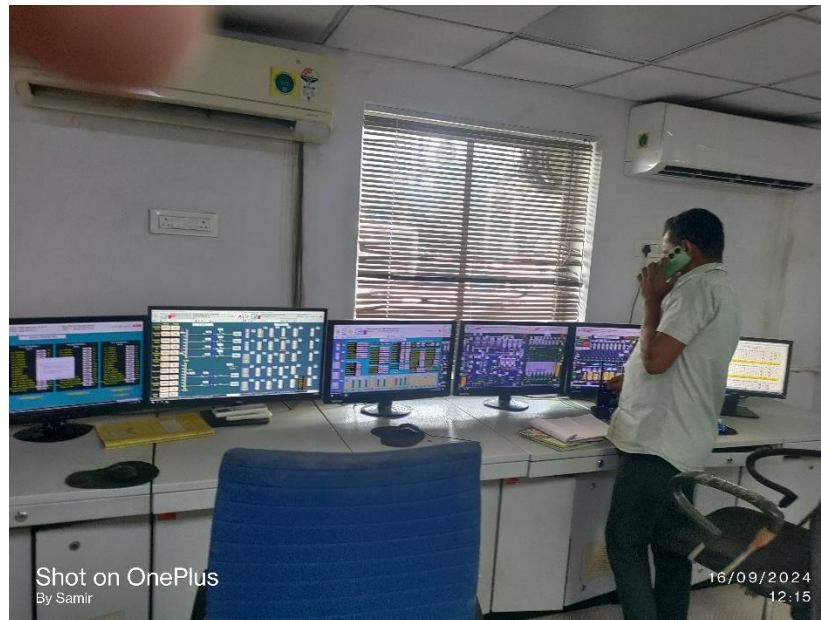
Hydrocyclones



Milk of Starch



Corn Steep Liquor Evaporators



Control Room – DCS system



Germ Dryer



Dried Germs



Fibre Dryer



Dried Fibre



Gluten Dryer



Dried Gluten



Starch Dryer



Starch Flash Dryer



Starch Finished Goods Godown



Boiler



Sulphur Storage & SO₂ gas supply



ETP Section



Solid Sludge Treatment



D&B personnel with Manikumar-Project Mgr-Paramesu Biotech

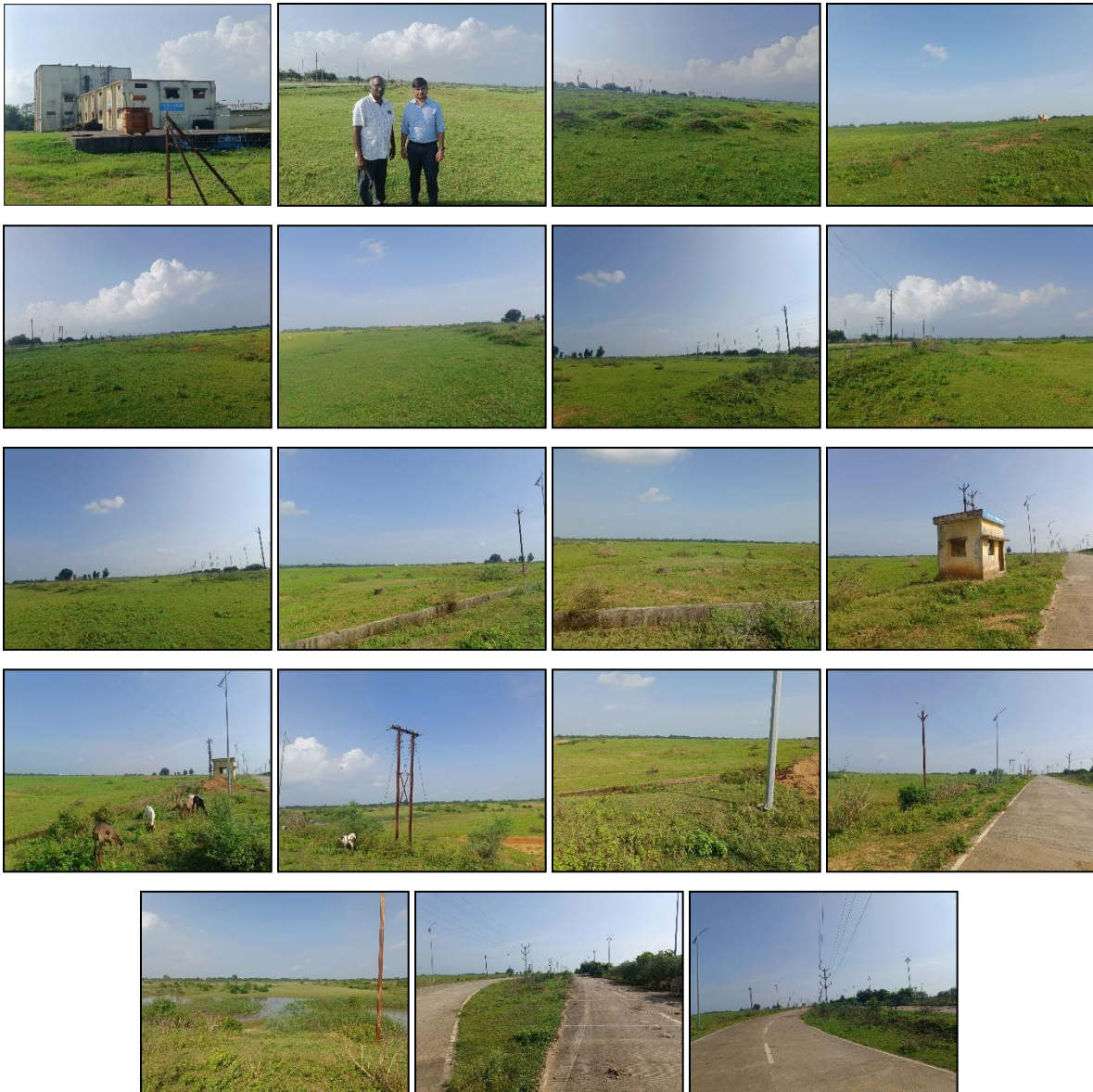
Proposed Unit

Proposed unit site visit was conducted by Mr. Rupesh Patil on 14th September 2024. Mr. Sesharao Vakalapudi, Civil Engineer, from PBL team accompanied for site visit discussion.

Following are observations during site visit -

- The subject plot is situated alongside the internal IDC roads which emanate from SH 22.
- The subject plot is irregular in shape.
- The subject plot is not levelled and requires land filling / levelling.
- During the visit we observed that the company has installed cement poles at certain distances to identify the plot boundaries. The plot was covered in vegetation.
- As observed, the development activities have not been yet initiated by the company. However, the company intends to initiate the site development activities by Oct 24.
- A ply through the vicinity indicates that presently there are only 2 operational units within the IDC namely Bhagwati Agrochem (P) Ltd and Inox Air Products India Pvt Ltd.
- The water for construction and production will be sourced from common WTP. The MPIDC has installed a common WTP having capacity of 23 MLD which sources the water from Narmada River.
- The electricity for the construction activities and later production will be sourced from 33KV substation present within the IDC premises at Energy Charges of 7.50 INR/Unit
- In terms of progress, the project is at land stage only.

Site Photographs:



Manufacturing Process

STARCH MANUFACTURING

Maize (corn) consists of germ, endosperm, and pericarp, with different chemical compositions. During wet milling, the maize is disintegrated into the main product starch and co-products, including maize germ, maize fibre, and maize gluten.

Maize wet milling involves the process of various physical, chemical, biochemical and mechanical operations to separate the components of the maize grain (germ, steep liquor, starch and maize gluten) into valuable products that are far more worthy than the raw grain.

The process of separating the starch from corn is one which involves several steps and procedures. The corn starch thus obtained is from the endosperm of the kernel and is used in the production of several foods and other items. The main aim of the corn starch production process is to release the starch from the cell structure and that too by ensuring that the germ is not damaged. When the process is over, four main derivatives are obtained, and they are starch, fiber, germ and gluten. The following is a brief of the corn starch production process:

- **Procurement:** Procure the maize from farmers and as well as traders and different locations and different states and store the material in Godowns and silos for consumption
- **Maize cleaning:** Cleaning of the maize is an important first step in the wet milling process Maize grain is received from farmers or market at the wet milling plant in bulk. It is prepared for milling by screening to remove all large and small pieces of cob, chaff, sand, ferrous material, and other undesirable foreign material. Dust and light chaff are removed by aspiration.

As maize is a perishable product, the maize cleaning process is crucial for ensuring the maize is free from any kind of impurities before further processing. Upon receiving and initial inspection, the maize undergoes pre-cleaning to remove large debris. It is then passed through vibrating screens and aspiration systems to eliminate smaller impurities like dust, sand, and chaff. Destoners remove heavier contaminants, while magnetic separators extract any metal particles. The cleaned maize is then soaked in steeping tanks with water and Sulphur dioxide to soften the kernels. Post-steeping, the maize is rinsed and undergoes fine cleaning to ensure no residual impurities remain. The conditioned maize, with adjusted moisture content, is ground to release the germ and pericarp from the endosperm, and then separated into its components using various separators and centrifuges. Finally, the cleaned and conditioned maize is inspected and stored in holding tanks, ready for the wet milling process to produce high-quality starch, derivatives, and other co products.

- **Steeping:** Steeping is the process of soaking in which the maize is hydrated to soften it. This involves carefully managing water flow, temperature, sulfur dioxide concentration, and other factors. Typically, maize is steeped for approximately 36 to 40 hours at temperatures ranging from 48°C to 52°C. A typical counter-current steep system consists of 8 tanks where fresh acid is added to the kernels prior to milling. Steep water circulates through the tanks, ensuring thorough contact with the corn. By the end of steeping, the maize should have absorbed sulfur dioxide (SO₂) water to reach 40 to 42% moisture content (wet basis) and released around 5.0% of its dry substance as soluble components into light corn steep water. It should also be soft enough to easily liberate the germ and free from adhering endosperm/hull. Fine milling and screening readily separate starch from fiber, settling free of gluten in a properly diluted slurry. The discharged light corn steep water is then evaporated in a multistage poly film evaporator to achieve the desired solids concentration.
- **Milling / Grinding:** The object of the milling process is to provide for complete separation of component parts of the maize. After steeping, the maize is coarsely ground or pulped with water (in de-germinating mills) resulting into two or three pieces, liberating the Germ portion with minimum breakage. A typical de-germinating mill consists of rotating and stationary toothed discs with pyramidal knobs. Subsequently, the maize undergoes further processing in a second de-germinating mill and a PIN mill, which liberates starch and protein with minimal fiber attrition, ensuring high starch yields.
- **Germs Separation and Germs Drying:** The ground primary slurry and pulp is dropped to a tank and is pumped to primary germ separation (cyclones) system. The significant density contrast between the germ and other kernel components facilitates easy separation via centrifugal force in the system. The separated germs are then directed to the germ washing system, followed by moisture squeezing (using a Screw press or Squeezer), drying, and packing for dispatch.

The primary slurry and pulp are directed into a tank before being pumped into the primary germ separation cyclone system. The significant density contrast between the germ and other kernel components facilitates easy separation via centrifugal force. The separated germs are then forwarded to the germ washing system, followed by moisture squeezing (using a Screw press or Squeezer), drying, and packed for dispatch.

After the germ is separated in the primary germ separation (PGS) overflow, the denser, under-grounded maize pulp and other components proceed to a de-slurring screen. Here, most of the slurry is removed before reaching the second de-germinating mill, where ungrounded maize and bound germs with kernel parts are fully liberated. The densities in both primary and secondary stages are maintained at 7.0 to 9.0

Baume for effective germ separation. All germs are separated in this process and sent to the PGS system. The remaining pulp and grit are directed to the de-slurring screen from the underflow, while the slurry is passed to the PIN mill tank. In the PIN mill, the pulp and grit undergo thorough grinding to liberate starch and gluten from hull and fiber.

- **Fiber Separation, Fiber Drying and Pulverize:** After thorough grinding, the fiber (hull) and grit undergo a fiber washing process consisting of six stages. Specially designed self-agitating sumps and screens are utilized in this system. Washed fiber is collected in a tank and transferred to a separating screen. The screen's overflow is fed to a Fiber Squeezer or Screw press, where water is squeezed out of the fiber (up to 60% moisture). The squeezed fiber is then dried in a Fiber Dryer, pulverized, and packed.
- **Starch & gluten separation (primary separator):** This machine separates starch & gluten by centrifugal action. This is a nozzle bowl centrifuge equipped for washing and is operated at a high starch density through the nozzles so that the lighter gluten is discharged from the overflow. In the underflow the starch is discharged at about 17 Baume with 2 - 4% protein.
- **Corn Gluten Meal:** Before drying, the concentrated gluten needs mechanical dewatering, which is done in a Decanter Centrifuge. This centrifuge features a solid bowl design, where heavy material (Gluten Mud) accumulates against the wall of a horizontal rotor with a conical end. An internal screw, rotating at a slight differential speed, then discharges the mud. The discharged gluten "mud" typically contains 35 – 40% solids. The overflow water, termed "process water," is collected and utilized for germ and fiber washing, as well as for steep acid after the addition of Sulphur dioxide.
- **Starch Washing:** The starch washing system comprises 12 stages, operating on a counter-current principle, to separate soluble and insoluble components from the starch slurry, increasing solids percentage to 39.6%. Multi cyclones, containing cyclonite and blanks, are utilized based on required capacity. Fresh water is introduced at the 12th stage pump suction to match system pressure. Soluble components are extracted as liquid from the overflow and directed to the primary separator feed tank for recovery. Refined starch slurry is withdrawn from the underflow of the 12th stage and stored in buffer tanks for captive consumption (Modified Starches / Starch derivatives). The remaining slurry is dewatered to 33% moisture by a horizontal peeler centrifuge before being conveyed to the drying system.
- **Starch drying:** The starch drying process employs a flash system, where hot air from a steam heater is used, and starch is introduced. This triggers a photoflash drying effect, reducing starch moisture to 13%.

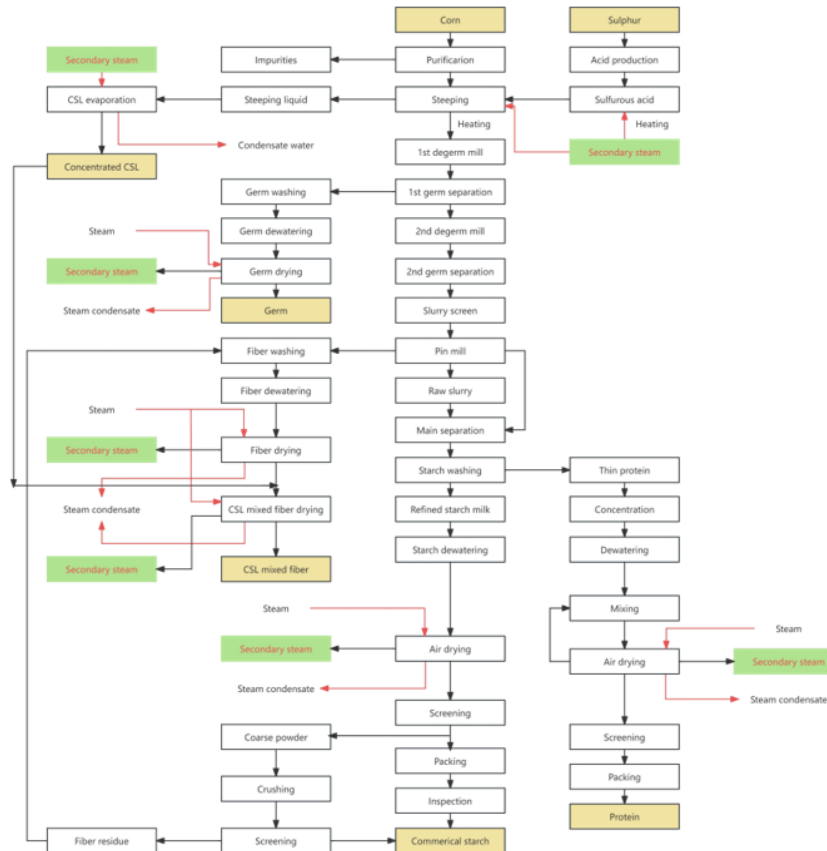
Dry starch is collected in duct cyclones, while exhaust gas is released. The starch powder is then conveyed to sifters to eliminate coarse particles before packing according to specifications.

- **Liquid Glucose manufacturing process:** The liquid glucose manufacturing process starts with refining starch slurry obtained from the Hydro cyclones, which is then alkalized with Sodium Carbonate and treated with enzymes. This treated slurry is processed in a Jet Cooker, converting it into Liquid Glucose Syrup by depolymerizing starch molecules under elevated temperature and pressure.

The resulting Liquid Glucose Syrup undergoes refinement steps, including neutralization, bleaching with activated carbon, and filtration in two stages with filter aid. The clarified glucose solution passes through Ion exchangers to remove ionic loads and is further concentrated in a Triple Effect Falling Film Evaporator. After a second carbon treatment and filtration, the deionized and decoloured glucose is concentrated further in a Triple Effect Falling Film Evaporator followed by a single effect evaporator to achieve the desired solids content. Finally, the concentrated glucose is cooled and packaged into 300 kg clean mild steel barrels/HDPE barrels or Tankers.

- **Manufacturing process Flow Chart for Maize Wet Milling:**

Corn starch block flow diagram



Plant Layout

The plant layout for setting up Maize Processing plant is based on the engineering principals like, planning the right equipment, coupled with right place, to permit the processing of a product unit in the most effective manner, through the shortest possible distance and in the shortest possible time.

The plant layout includes Office Block, Water Tank, Water Sump, Canteen, Starch Warehouse -, Co-Product Warehouse, Starch Warehouse - Stock About 6000 Tons of Starch, Reserve Starch Packing Line, Starch Packing, Bagged Corn Warehouse, Open Shed for Maize Unloading, 250 TPH Under Ground Belt Conveyor, 4 Nos 15000 Mt Silo, 100 Ton's Weighing Silo, 250 TPH Pre Cleaning System, 250 TPH Feed Elevator, 120 TPH Silo Unloading Conveyor, 180 TPH Silo Unloading Conveyor, 120 TPH Post Cleaning System, Maize Dust Godown, Raw Water Tank, Softner Water Storage Tank 200 M3, Control Room, Toilet, CSL Evaporation, Starch Workshop, Power

[illegible]

Factory Building

Area Details as furnished by the company is exhibited below –

Area Details			
Sr. No.	Particular	Area in Sq. Mt	Area in Acres
1	Total Site Area	4,41,466.52	109.09
2	Raw Material Godown Shed	7,895.07	1.95
3	Boiler Fuel Shed	6,601.56	1.63

4	Byproducts Packing & Godown	9,749.16	2.41
5	Starch And Byproducts Godown	9,749.16	2.41
6	Starch Packing and Godown	11,353.96	2.81
7	Starch Main Block		-
8	Ground	6,684.46	1.65
9	First	3,559.08	0.88
10	Second	321.12	0.08
11	Water Tank	100.00	0.02
12	Office Block	393.22	0.10
13	Canteen	250.00	0.06
14	Steeping Vats	676.46	0.17
15	Silo's	3,427.72	0.85
16	Workers Shed	1,960.56	0.48
17	Toilet Blocks	379.90	0.09
18	Boiler	7,057.27	1.74
19	Total Plinth Area	70,158.70	17.34
Source: PBL			

Civil Cost - Civil & Structural estimated cost Rs.893/- per Sq. Ft (Rs.9,605/- per Sq. M) to construct 8,40,159 Sq. Ft (78,082 Sq M) area at subject location is reasonable.

Sr. No.	Purpose	Qty	Dimensions in Mtrs.	Area in Sq. Mtrs.	Cost (Inc GST) (Amount in Rs.)
1	Maize Godown and Maize Unloading Shed.	1	162.45*148.6*7.00	7,895.07	6,70,00,000.00

Sr. No.	Purpose	Qty	Dimensions in Mtrs.	Area in Sq. Mtrs.	Cost (Inc GST) (Amount in Rs.)
2	Silos for maize storage (15,000 MTs each)	4	33.00 Dia.	857.37	5,20,00,000.00
3	Maize pre-cleaning shed	1	15.75*15.75*22.00	248.06	1,38,00,000.00
4	Post cleaning shed	1	15.75*15.75*22.00	248.06	1,38,00,000.00
5	Steeping vats	12	29.80*22.70*18.60	676.46	4,00,00,000.00
6	Starch main building. (G+2 floors)	1	118.10*56.60*15.00	10,564.66	10,40,00,000.00
7	Starch packing & Godown shed	1	200.60*56.60*6.00	11,353.96	8,40,00,000.00
8	Starch & byproducts Godown shed	1	200.60*48.60*6.00	9,749.16	7,00,00,000.00
9	Boiler 60 tonnes per Hour, Chimney & Fuel Handling System	1	54.75*128.90	7,057.27	3,24,00,000.00
10	Husk Shed	1	162.60*40.60	6,601.56	3,35,00,000.00
11	Raw water Sump	1	18.60*10.60*4.00	383.16	24,00,000.00
12	Effluent Treatment Plant, Zero Liquid Discharge & Sewage Treatment plant	1	56.17*133.52	7,499.81	3,50,00,000.00
13	Corn Steep Liquid Evaporator Shed	1	20.75*20.75*18.00	430.56	65,00,000.00
14	Corn Steep Liquid Cooling Towers sump	1	25.00*15.00*2.00	375.00	32,00,000.00
15	Stores and packing materials shed	1	20.00*25.00*6.00	500.00	48,00,000.00
16	Lab Building	1	25.30*10.45*4.00	264.38	40,00,000.00
17	Mechanical workshop	1	25.30*20.45	517.39	42,00,000.00
18	Time office building	1	15.30*10.45*4.00	159.88	20,00,000.00
19	Office building	1	33.84*11.62*5.00	393.22	41,00,000.00
20	Canteen building	1	25.00*10.00*6.00	250.00	30,00,000.00
21	Labour camp shed	4	50.99*7.69*4.00	392.11	60,00,000.00

Sr. No.	Purpose	Qty	Dimensions in Mtrs.	Area in Sq. Mtrs.	Cost (Inc GST) (Amount in Rs.)
22	Sulphur Dioxide Section & Sulphur Shed	1	15.23*15.30*6.00	233.01	32,50,000.00
23	Security room	1	7.23*5.23*4.00	37.81	8,00,000.00
24	Weight bride rooms	2	3.50*18.00	126.00	20,00,000.00
25	Co products packing & Godown shed	1	200.60*48.60*6.00	9,749.16	6,60,00,000.00
26	Packing materials shed	1	65.30*20.45*6.00	1,335.38	96,00,000.00
27	Washrooms	4	10.60*5.12*4.00	54.27	20,00,000.00
28	Fire water sump	1	12.40*10.40*2.00	128.96	15,00,000.00
29	Bituminous roads, drains & compound works	1	5 Kms		7,91,50,000.00
Total				78,081.73	75,00,00,000.00
Source : PBPL					

Plant & Machinery

The company has estimated Plant & Machinery cost of INR 2280.97 Cr for proposed 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661

Plant & Machinery list as given by PBL is exhibited below –

INR million

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
1	Maize Godown	CHUTES FOR BELT CONVEYORS	25	RJ Traders	18 %	0.32	7.93	1.43	9.35
2	250 TPH PRE CLEANING	DISTUBUTION CHUTE	1	RJ Traders	18 %	2.50	2.50	0.45	2.95
3	PROCESS PIPING	Process Piping	1	RJ Traders	18 %	58.62	58.62	10.55	69.17

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
4	TANKS	Tanks	1	RJ Traders	18 %	65.44	65.44	11.78	77.22
5	Maize Godown	MAIZE STACKERS FOR MAIZE UNLOADING	10	BHAGWAT ENGINEERING PVT LTD	18 %	0.54	5.40	0.97	6.37
6	Maize Godown	SHUTTERS	15	BHAGWAT ENGINEERING PVT LTD	18 %	0.15	2.25	0.41	2.66
7	VATS	VAT DEWATERING STSINERS BIG ONE 300 NB SIZE AND 5 MTRS LENGTH	14	BHAGWAT ENGINEERING PVT LTD	18 %	0.09	1.31	0.24	1.54
8	VATS	VAT DEWATERING STSINERS SMALL ONE 200 NB SIZE AND 1.2 MTRS LENGTH	14	BHAGWAT ENGINEERING PVT LTD	18 %	0.02	0.33	0.06	0.39
9	GRINDING	RAV'S (25 TON'S NEED TO DISCHARGE) 500 MM SIZE	5	BHAGWAT ENGINEERING PVT LTD	18 %	0.43	2.13	0.38	2.51
10	GERM DRYER	VAPOUR FILTER	2	BHAGWAT ENGINEERING PVT LTD	18 %	1.63	3.27	0.59	3.86
11	GERM DRYER	GERM DRYER EXHAUEST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18 %	0.75	0.75	0.14	0.89
12	GERM DRYER	RAV (400 MM)	2	BHAGWAT ENGINEERING PVT LTD	18 %	0.31	0.62	0.11	0.73
13	DSM SYSTEM	FIBER WASHING SUMP 1200 TPD	1	BHAGWAT ENGINEERING PVT LTD	18 %	6.05	6.05	1.09	7.14
14	FIBER DRYER	VAPOR FILTER	2	BHAGWAT ENGINEERING PVT LTD	18 %	2.41	4.83	0.87	5.70
15	FIBER DRYER	FIBER EXHAUST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18 %	1.25	1.25	0.23	1.48
16	FIBER DRYER	RAV (300 MM) 300 MM DIA	2	BHAGWAT ENGINEERING PVT LTD	18 %	0.19	0.38	0.07	0.45
17	ENRICHED DRYER	VAPOR FILTER	1	BHAGWAT ENGINEERING PVT LTD	18 %	3.27	3.27	0.59	3.86
18	ENRICHED DRYER	DREYR EXHAUST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18 %	1.25	1.25	0.23	1.48
19	ENRICHED DRYER	RAV (350 MM DIA)	2	BHAGWAT ENGINEERING PVT LTD	18 %	0.19	0.38	0.07	0.45
20	GLUTEN DRYER	VAPOR FILTER	1	BHAGWAT ENGINEERING PVT LTD	18 %	3.27	3.27	0.59	3.86

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
21	GLUTEN DRYER	DRYER EXHAUST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18 %	1.00	1.00	0.18	1.18
22	AGITATORS	Agitators	1	BHAGWAT ENGINEERING PVT LTD	18 %	23.56	23.56	4.24	27.80
23	WORK SHOP	LATHE MACHINE 15 FEET (BED) 1200 MM DIA JAWS (HEAVY DUTY)	1	BHAGWAT ENGINEERING PVT LTD	18 %	3.23	3.23	0.58	3.81
24	SECURITY GATE	Security Gate	1	BHAGWAT ENGINEERING PVT LTD	18 %	1.00	1.00	0.18	1.18
25	ERECTION OF MACHINEARY	Errection of Machinery	1	BHAGWAT ENGINEERING PVT LTD	18 %	6.75	6.75	1.22	7.97
26	Silo Section	SILo FILING ELEVATOR 250 TPH 34 MTRS HEIGHT	1	FAMSUN STORAGE ENGINEERING CO LTD	0%	283.67	283.67	-	283.67
27	MST	1.ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 350 M3/HR AND WORKING PRESSURE 6 KG/CM2 2.MST (50 TPH PER HOUR CURSHING RATE) 1200 TPD 3.	1	Alfa Laval India Private Limited	18 %	1.60	1.60	0.29	1.89
28	MST	MST (50 TPH PER HOUR CURSHING RATE) 1200 TPD	1	Alfa Laval India Private Limited	18 %	27.50	27.50	4.95	32.45
29	PRIMARY SEPARATOR	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 220M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Alfa Laval India Private Limited	18 %	1.60	1.60	0.29	1.89
30	PRIMARY SEPARATOR	PS (50 TPH PER HOUR CURSHING RATE)	1	Alfa Laval India Private Limited	18 %	27.50	27.50	4.95	32.45
31	GLUTEN THICKNER	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 220M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Alfa Laval India Private Limited	18 %	1.60	1.60	0.29	1.89
32	GLUTEN THICKNER	GT (50 TPH PER HOUR CURSHING RATE)	1	Alfa Laval India Private Limited	18 %	27.50	27.50	4.95	32.45
33	CLARIFIER STNX 712	CLARIFIER	1	Alfa Laval India Private Limited	18 %	8.50	8.50	1.53	10.03
34	STARCH DRYER	STARCH DRYERS 12 TPH	3	NEW AVM SYSTECH PVT LTD	18 %	44.33	132.98	23.94	156.91
35	CSL	FALLING FILM EVAPORATOR	1	Alfa Laval India Private Limited	18 %	105.00	105.00	18.90	123.90
36	SOFTNER WATER PALNT	125 M3/HR	1	KARTHIKEYA PACKAGED WATER TECHNOLOGIES	18 %	5.22	5.22	0.94	6.16

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
37	COOLING TOWER	COOLING TOWER INLET TEMP 41 DEG	1	KARTHIKEYA PACKAGING TECHNOLOGIES	18 %	6.60	6.60	1.19	7.79
38	WEIGHING SCALES	2 TON'S WEIGH SCALE	3	Essae-Teroaka Private Limited	18 %	0.12	0.37	0.07	0.43
39	WEIGHING SCALES	150 KG'S WEIGH SCALE	15	Essae-Teroaka Private Limited	18 %	0.04	0.60	0.11	0.71
40	WEIGHING SCALES	WAY BRIDGE CONTROL ROOM	2	MG WEIGHING SYSTEMS	18 %	1.56	3.12	0.56	3.68
41	EOT	EOT AT MAIN BUILDING - 7 Tons	1	LAKSHMI INDUSTRIES	18 %	2.00	2.00	0.36	2.36
42	EOT	EOT AT MST AND PS AND GT - 10 Tons	1	LAKSHMI INDUSTRIES	18 %	3.10	3.10	0.56	3.66
43	BOILER AND RO PALNT	55 TPH	1	FORBESVYNSKE	18 %	322.50	322.50	58.05	380.55
44	BOILER AND RO PALNT	RO PALNT	1	KARTHIKEYA PACKAGING TECHNOLOGIES	18 %	11.12	11.12	2.00	13.12
45	STEAM ACCESSORIES AND STEAM PIPING	STEAM ACCESSORIES & PIPING	1	FORBES MARSHALL PVT LTD	18 %	79.84	79.84	14.37	94.21
46	PUMPS	Pumps	1	SIVANI PUMPS AND SYSTEMS PVT LTD	18 %	81.18	81.18	14.61	95.79
47	ETP AND ZLD AND STP	ETP, ZLD & STP FOR 1200 TPD PLANT	1	United Envirotech Pvt Ltd	18 %	168.88	168.88	30.40	199.27
48	DRINKING WATER	DRINKING WATER	1	KARTHIKEYA PACKAGING TECHNOLOGIES	18 %	2.97	2.97	0.53	3.50
49	FIRE FIGHTING SYSTEM ENTIRE PALNT	FIRE FIGHTING SYSTEM EQUIPMENT	1	Pump Engineering Enterprises	18 %	25.00	25.00	4.50	29.50
50	LAB	LAB EQUIPMENTS	1	lisha Scientifics	18 %	11.15	11.15	2.01	13.16
51	LAB	LAB EQUIPMENTS	1	lisha Scientifics	18 %	0.87	0.87	0.16	1.02
52	LAB	LAB EQUIPMENTS	1	lisha Scientifics	18 %	0.87	0.87	0.16	1.02
53	LAB	LAB EQUIPMENTS	1	lisha Scientifics	18 %	0.49	0.49	0.09	0.58
54	AIR COMPRESSOR	570 CFM	4	ELGI Equipments Limited	18 %	3.92	15.66	2.82	18.48
55	INSULATION	LRB MATS, ALLUMINIUM COILS & LABOUR CHARGES	1	ARUNDEEP ENTERPRISES	18 %	10.10	10.10	1.82	11.92
56	GRINDING	75 kw motors	4	Pump Engineering Enterprises	18 %	0.24	0.96	0.17	1.13
57	FINE GRINDING SYSTEM	450 kw motors	2	Pump Engineering Enterprises	18 %	1.24	2.48	0.45	2.93

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
58	250 TPH PRE CLEANING	PULVARIZER FOR MAIZE DUST 3 TPH	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
59	120 TPH POST CLEANING	PULVARIZER FOR MAIZE DUST 3 TPH	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
60	SO2 SYSTEM 150 M3	SO2 SECTION	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.97	11.73	-	11.73
61	GRINDING	MAIZE DE WATERING SCREEN 3 MM 1500 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.44	-	1.44
62	GRINDING	GERM CYCLONE STAGE -1 (SIZE 6X9" +4X9") 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.88	-	0.88
63	GRINDING	GERM DEWATER SCREEN 1.5 MM (1200 TPD)	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	0.72	-	0.72
64	GRINDING	GERM CYCLONE STAGE -2 (SIZE 6X9" +4X9") 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.88	-	0.88
65	GERM WASHING SYSTEM	1 STAGE WASHING SYSTEM (1MM SCREEN) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.44	-	1.44
66	GRINDING	GRINDER STAGE -1 (50 TPH) 36"	3	Oushangyuan Process & Equipment Intelligent Co	0%	0.33	12.15	-	12.15
67	GRINDING	GRINDER STAGE -2 (50 TPH) 36"	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.33	8.10	-	8.10
68	GERM DRYER	2 ND STAGE WASHING SYSTEM (1 MM SCREEN) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.44	-	1.44
69	GERM DRYER	GERM PRESS 700 TPD CAPACITY	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.45	10.86	-	10.86
70	GERM DRYER	GERM DRYER (50 TPH PER HOUR CURSHING RATE)	2	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	38.07	-	38.07

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
71	FINE GRINDING SYSTEM	DSM SCREENS AND BOXES 730 MM X1902 X50 MIC TRIPLEX & 1 ST STAGE WASHING SYSTEM 730MM X1602 X50 MIC TRIPLEX & 1 ND STAGE TO 7TH STAGE WASHING SYSTEM 730MM X1602 X75 MIC TRIPLEX & FIBER DEWATERING SCREENS 730MM X1902 X150 MIC TRIPLEX	22	Oushangyuan Process & Equipment Intelligent Co	0%	0.04	11.54	-	11.54
72	FINE GRINDING SYSTEM	FINE MILLS (IMPACT MILL) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.31	7.43	-	7.43
73	FIBER DRYER	FIBER PRESS 500 TPD	3	Oushangyuan Process & Equipment Intelligent Co	0%	0.53	19.30	-	19.30
74	FIBER DRYER	FIBER DRYER (50 TPH PER HOUR CURSHING RATE) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	38.07	-	38.07
75	ENRICHED DRYER	PEDDEL MIXTURE (50 TPH PER HOUR CURSHING RATE) 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.86	-	0.86
76	ENRICHED DRYER	FEED SCREW TO DRYER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
77	ENRICHED DRYER	Recycled Screw	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
78	ENRICHED DRYER	DRYER (50 TPH PER HOUR CURSHING RATE) 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	19.04	-	19.04
79	ENRICHED DRYER	OUTLET CONVEYOR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
80	HYDROCYCLO NE	HYDRO CYCLONE (13 STAGE) 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.46	17.75	-	17.75
81	GLUTEN DRYER	DRYER	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	19.04	-	19.04

S. N O	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
8 2	STARCH DRYER	VIBRO SHIFTERS 12 TPH	1 0	Oushangyuan Process & Equipment Intelligent Co	0%	0.12	14.58	-	14.58
8 3	250 TPH PRE CLEANING	CONVEYING SYSTEM FOR MAIZE DUST 3 TPH CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
8 4	FIBER DRYER	FIBER DRYER OUTLET TO ENRICH FIBER DRYER SCREW 7 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
8 5	FITER PRESS	FLTER PRESS	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.78	9.43	-	9.43
8 6	STARCH DRYER	Starch automatic packing, ton bag packing and robotic palletizer system	1	Oushangyuan Process & Equipment Intelligent Co	0%	3.18	38.59	-	38.59
8 7	ENRICHED DRYER	Fiber packing, ton bag packing and robotic palletizer system	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.37	16.64	-	16.64
8 8	FUME EXTRACTION SYSTEM	TAIL GAS TREATING SYSTEM OR DE GASING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.18	2.17	-	2.17
8 9	SO2 SYSTEM 150 M3	PHES (INPUT TEMP : 38 DEG, OUT PUT :- 52)	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.02	0.53	-	0.53
9 0	VATS	STONE CATCHER 1000 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.57	-	1.57
9 1	VATS	PHES/ PIPE HEAT EXCAHNGER (INPUT :-38 OUTPUT :- 52) 330 M3/HR	2 8	Oushangyuan Process & Equipment Intelligent Co	0%	0.02	7.40	-	7.40
9 2	MST	DE SANDING CYCLONE SYSTEM (SIZE 4 X8" + 1X6") FLOW 350 M3/HR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.08	0.93	-	0.93
9 3	CLARIFIER STNX 712	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 150 M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.04	0.44	-	0.44
9 4	HYDROCYCLO NE	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 150 M3/HR AND	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.04	0.44	-	0.44

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
		WORKING PRESSURE 6 KG/CM2							
95	STARCH DRYER	CENTRIFUES (6 TPH)	6	Oushangyuan Process & Equipment Intelligent Co	0%	1.17	85.59	-	85.59
96	GLUTEN DRYER	SHIFTER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.12	1.46	-	1.46
97	GERM DRYER	GERM CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
98	FIBER DRYER	FIBER CONVEYING SYSTEM 5 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
99	ENRICHED DRYER	ENRICHED FIBER CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
100	GLUTEN DRYER	GLUTEN CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
101	GERM DRYER	GERM DRYER FEED SCREW	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
102	FIBER DRYER	FIBER DRYER FEED SCREW	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
103	FIBER DRYER	FIBER DRYER OUTLET TO PULVARIZER SCREW 7 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
104	GLUTEN DRYER	DRYER INPUT SCREW	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
105	GLUTEN DRYER	OUTLET CONVEYOR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
106	GLUTEN DRYER	RECYCLE CONVEYOR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65

S. N o	SECTION NAME	EQUIPMENT NAME	Q t y	SUPPLIER NAME	G S T %	EAC H VAL UE	BASI C VAL UE	G S T	TOT AL COS T
107	GLUTEN DRYER	FINE FEED CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
108	GLUTEN DRYER	GLUTEN AND CSL MIXTURE (CSL NEED TO MIX AND HAVE TO MAINTAIN PROTINE 60% IN FEED)	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.86	-	0.86
109	STARCH DRYER	CENTRIFUSE OUTLET CONVEYOR 6TPH	3	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	2.57	-	2.57
110	FIBER DRYER	FIBER PULVARIZER 5 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
111	ENRICHED DRYER	ENRICHED FIBER PULVARIZER 10 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
112	GLUTEN DRYER	PULVRIZER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
113	GERM DRYER	GERM PACKING AND ROBOTIC PALLETIZER SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.09	13.29	-	13.29
114	GLUTEN DRYER	Protein packing and ton bag packing	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.33	4.00	-	4.00
115	GLUTEN DRYER	BAG FILTER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.02	0.20	-	0.20
116	120 TPH POST CLEANING	CONVEYING SYSTEM FOR MAIZE DUST 3 TPH CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
117	Plant Drawings	Complete plant drawings	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.20	16.27	-	16.27
	Total						2,047.76	233.21	2,280.97

P&M Quotations - The Company has provided INR 2280.97 Million quotations for the project under consideration. It seems the P&M cost is based on budgetary quotations or estimated cost. The Company to arrange firm quotations and review the contract before placing the final orders on respective suppliers.

Sr · N o.	Section Name	Equipment Name	Q ty	Suppli er Name	As per Quote	
					Ref: Quotation No. / Date	Total Amount in INR incl. Tax.
1	Maize Godown	Chutes For Belt Conveyors	25	Rj Traders	NA / Dtd:15-10-2024	9,351,500 .00
2	250 Tph Pre Cleaning	Distribution Chute	1			2,950,000 .00
3	Process Piping	Process Piping	1			69,174,15 2.34
4	Tanks	Tanks	1			77,221,97 3.00
5	Maize Godown	Maize Stackers For Maize Unloading	10	Bhagwat Enginee ring Pvt Ltd	NA Dtd: 15-10-2024	6,372,000 .00
6	Maize Godown	Shutters	15			2,655,000 .00
7	Vats	Vat Dewatering Stsiners Big One 300 Nb Size And 5 Mtrs Length	14			1,544,620 .00
8	Vats	Vat Dewatering Stsiners Small One 200 Nb Size And 1.2 Mtrs Length	14			392,350.0 0
9	Grinding	Rav'S (25 Ton'S Need To Discharge) 500 Mm Size	5			2,507,500 .00
10	Germ Dryer	Vapour Filter	2			3,858,246 .00
11	Germ Dryer	Germ Dryer Exhaust Blower	1			885,000.0 0
12	Germ Dryer	Rav (400 Mm)	2			731,600.0 0
13	Dsm System	Fiber Washing Sump 1200 Tpd	1			7,139,000 .00
14	Fiber Dryer	Vapor Filter	2			5,696,450 .00
15	Fiber Dryer	Fiber Exhaust Blower	1			1,475,000 .00
16	Fiber Dryer	Rav (300 Mm) 300 Mm Dia	2			448,400.0 0
17	Enriched Dryer	Vapor Filter	1			3,858,240 .10
18	Enriched Dryer	Dreyr Exhaust Blower	1			1,475,000 .00
19	Enriched Dryer	Rav (350 Mm Dia)	2			448,400.0 0
20	Gluten Dryer	Vapor Filter	1			3,858,240 .10
21	Gluten Dryer	Dryer Exhaust Blower	1			1,180,000 .00

22	Agitators	Agitators	I			27,803,160.00
23	Work Shop	Lathe Machine 15 Feet (Bed) 1200 Mm Dia Jaws (Heavy Duty)	I			3,805,500.00
24	Security Gate	Security Gate	I			1,180,000.00
25	Erection Of Machinery	Errection Of Machinery	I			7,965,000.00
26	Silo Section	Silo Filing Elevator 250 Tph 34 Mtrs Height	I	Famsun Storage Engineering Co Ltd	001 Dtd: 14-10-2024	283,669,022.25
27	Mst	1.Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 350 M3/Hr And Working Pressure 6 Kg/Cm2 2.Mst (50 Tph Per Hour Curshing Rate) 1200 Tpd 3.	I	Alfa Laval India Private Limited	2024/AL/HSS/PB/CH 38_R2 Dtd: 16-10-2024	113,044,000.00
28	Mst	Mst (50 Tph Per Hour Curshing Rate) 1200 Tpd	I			
29	Primary Separator	Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 220M3/Hr And Working Pressure 6 Kg/Cm2	I			
30	Primary Separator	Ps (50 Tph Per Hour Curshing Rate)	I			
31	Gluten Thickner	Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 220M3/Hr And Working Pressure 6 Kg/Cm2	I			
32	Gluten Thickner	Gt (50 Tph Per Hour Curshing Rate)	I			
33	Clarifier Stnx 712	Clarifier	I			
34	Starch Dryer	Starch Dryers 12 Tph	3	New Avm Systech Pvt Ltd	AVM/O/PDS-21008/RI Dtd:11-10-2024	156,910,500.00
35	Csl	Falling Film Evaporator	I	Alfa Laval India Private Limited	EV202410054 RI Dtd: 13-09-2024	123,900,000.00
36	Softner Water Palnt	125 M3/Hr	I	Karthik eya Packaged Water Technologies	KPT/KKD/PBPL/0278 /2024-25 Dtd: 14-10-2024	6,159,600.00
37	Cooling Tower	Cooling Tower Inlet Temp 41 Deg	I	Karthik eya Packagi ng Technol ogies	KPT/KKD/PBPL/0281 /2024-25 Dtd: 10-10-2024	7,788,000.00

38	Weighing Scales	2 Ton'S Weigh Scale	3	Essae-Teroaka Private Limited	ETPL/RJY/APR/24-25 Dtd: 13-10-2024	433,281.84
39	Weighing Scales	150 Kg'S Weigh Scale	15	Essae-Teroaka Private Limited		709,398.30
40	Weighing Scales	Way Bridge Control Room	2	Mg Weighing Systems	NA Dtd: 16-10-2024	3,681,600.00
41	Eot	Eot At Main Building - 7 Tons	1	Lakshmi Industries	NA Dtd: 15-10-2024	2,360,000.00
42	Eot	Eot At Mst And Ps And Gt - 10 Tons	1	Lakshmi Industries	NA Dtd: 15-10-2024	3,658,000.00
43	Boiler And Ro Palnt	55 Tph	1	Forbesvynske	FV2411/EP500/PI4/PBPL/R5-A Dtd: 10-10-2024	380,550,000.00
44	Boiler And Ro Palnt	Ro Palnt	1	Karthikaya Packaging Technologies	KPT/KKD/PBPL/0280/2024-25 Dtd: 14-10-2024	13,115,700.00
45	Steam Accessories And Steam Piping	Steam Accessories & Piping	1	Forbes Marshall Pvt Ltd	2425/FMPL/VDR/90/VBPL/90/01082024 Dtd:01-08-2024	94,213,797.18
46	Pumps	Pumps	1	Sivani Pumps And Systems Pvt Ltd	SPH2BB802-01 Dtd: 10-10-2024	95,790,817.62
47	Etp And Zld And Stp	Etp, Zld & Stp For 1200 Tpd Plant	1	United Envirotech Pvt Ltd	NA Dtd:13-10-2024	199,272,500.00
48	Drinking Water	Drinking Water	1	Karthikaya Packaging Technologies	KPT/KKD/PBPL/0278/2024-25 Dtd: 14-10-2024	3,504,600.00
49	Fire Fighting System Entire Palnt	Fire Fighting System Equipment	1	Pump Engineering Enterprises	PEE:VJA:GRK:G79/24-25 Dtd: 15-10-2024	29,500,000.00
50	Lab	Lab Equipments	1	lisha Scientifics	093/LISHA/LABS/2024 Dtd: 15-10-2024	13,162,693.50

51	Lab	Lab Equipments	1		094/LISHA/LABS/2024-25 Dtd: 15-10-2024	1,022,706.00
52	Lab	Lab Equipments	1		095/LISHA/LABS/2024-25 Dtd: 15-10-2024	1,022,706.00
53	Lab	Lab Equipments	1		093/LISHA/LABS/2024 Dtd: 15-10-2024	583,770.78
54	Air Compressor	570 Cfm	4	Elgi Equipments Limited	CPA/EG/24-25/95 Dtd: 13-10-2024	18,483,520.00
55	Insulation	Lrb Mats, Alluminium Coils & Labour Charges	1	Arundep Enterprises	115 Dtd: 15-10-2024	11,917,764.00
56	Grinding	75 Kw Motors	4	Pump Engineering Enterprises	PEE:VJA: GRK:G91/24-25 Dtd: 14-10-2024	1,132,800.00
57	Fine Grinding System	450 Kw Motors	2	Pump Engineering Enterprises	PEE:VJA: GRK:G99/24-25 Dtd: 14-10-2024	2,926,400.00
58	250 Tph Pre Cleaning	Pulvarizer For Maize Dust 3 Tph	1	Oushan gyuan Process & Equipment Intelligent Co	YUANQT2023678 Dtd: 12-10-2024	452,209,975.20
59	120 Tph Post Cleaning	Pulvarizer For Maize Dust 3 Tph	1			
60	So2 System 150 M3	So2 Section	1			
61	Grinding	Maize De Watering Screen 3 Mm 1500 Tpd	2			
62	Grinding	Germ Cyclone Stage -1 (Size 6X9" +4X9") 1200 Tpd	1			
63	Grinding	Germ Dewater Screen 1.5 Mm (1200 Tpd)	1			
64	Grinding	Germ Cyclone Stage -2 (Size 6X9" +4X9") 1200 Tpd	1			
65	Germ Washing System	1 Stage Washing System (1Mm Screen) 1200 Tpd	2			
66	Grinding	Grinder Stage -1 (50 Tph) 36"	3			
67	Grinding	Grinder Stage -2 (50 Tph) 36"	2			
68	Germ Dryer	2 Nd Stage Washing System (1 Mm Screen) 1200 Tpd	2			
69	Germ Dryer	Germ Press 700 Tpd Capacity	2			
70	Germ Dryer	Germ Dryer (50 Tph Per Hour Curshing Rate)	2			

71	Fine Grinding System	Dsm Screens And Boxes 730 Mm X1902 X50 Mic Triplex & 1 St Stage Washing System 730Mm X1602 X50 Mic Triplex & 1 Nd Stage To 7Th Stage Washing System 730Mm X1602 X75 Mic Triplex & Fiber Dewatering Screens 730Mm X1902 X150 Mic Triplex	22			
72	Fine Grinding System	Fine Mills (Impact Mill) 1200 Tpd	2			
73	Fiber Dryer	Fiber Press 500 Tpd	3			
74	Fiber Dryer	Fiber Dryer (50 Tph Per Hour Curshing Rate) 1200 Tpd	2			
75	Enriched Dryer	Peddel Mixture (50 Tph Per Hour Curshing Rate) 1200 Tpd	1			
76	Enriched Dryer	Feed Screw To Dryer	1			
77	Enriched Dryer	Recycled Screw	1			
78	Enriched Dryer	Dryer (50 Tph Per Hour Curshing Rate) 1200 Tpd	1			
79	Enriched Dryer	Outlet Conveyor	1			
80	Hydrocyclone	Hydro Cyclone (13 Stage) 1200 Tpd	1			
81	Gluten Dryer	Dryer	1			
82	Starch Dryer	Vibro Shifters 12 Tph	10			
83	250 Tph Pre Cleaning	Conveying System For Maize Dust 3 Tph Capacity	1			
84	Fiber Dryer	Fiber Dryer Outlet To Enrich Fiber Dryer Screw 7 Ton'S Per Hour Capacity	1			
85	Fiter Press	Fiter Press	1			
86	Starch Dryer	Starch Automatic Packing, Ton Bag Packing And Robotic Palletizer System	1			
87	Enriched Dryer	Fiber Packing, Ton Bag Packing And Robotic Palletizer System	1			
88	Fume Extraction System	Tail Gas Treating System Or De Gasing System	1			
89	So2 System 150 M3	Phes (Input Temp : 38 Deg, Out Put :- 52)	2			
90	Vats	Stone Catcher 1000 Tpd	2			
91	Vats	Phes/ Pipe Heat Exchanger (Input :- 38 Output :- 52) 330 M3/Hr	28			
92	Mst	De Sanding Cyclone System (Size 4 X8" + 1X6") Flow 350 M3/Hr	1			

93	Clarifier Stnx 712	Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 150 M3/Hr And Working Pressure 6 Kg/Cm2	1			
94	Hydrocyclone	Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 150 M3/Hr And Working Pressure 6 Kg/Cm2	1			
95	Starch Dryer	Centrifuges (6 Tph)	6			
96	Gluten Dryer	Shifter	1			
97	Germ Dryer	Germ Conveying System	1			
98	Fiber Dryer	Fiber Conveying System 5 Ton'S Per Hour Capacity	1			
99	Enriched Dryer	Enriched Fiber Conveying System	1			
100	Gluten Dryer	Gluten Conveying System	1			
101	Germ Dryer	Germ Dryer Feed Screw	1			
102	Fiber Dryer	Fiber Dryer Feed Screw	1			
103	Fiber Dryer	Fiber Dryer Outlet To Pulvarizer Screw 7 Ton'S Per Hour Capacity	1			
104	Gluten Dryer	Dryer Input Screw	1			
105	Gluten Dryer	Outlet Conveyor	1			
106	Gluten Dryer	Recycle Conveyor	1			
107	Gluten Dryer	Fine Feed Conveying System	1			
108	Gluten Dryer	Gluten And Csl Mixture (Csl Need To Mix And Have To Maintain Protine 60% In Feed)	1			
109	Starch Dryer	Centrifuse Outlet Conveyor 6Tph	3			
110	Fiber Dryer	Fiber Pulvarizer 5 Ton'S Per Hour Capacity	1			
111	Enriched Dryer	Enriched Fiber Pulvarizer 10 Ton'S Per Hour Capacity	1			
112	Gluten Dryer	Pulvrizer	1			
113	Germ Dryer	Germ Packing And Robotic Palletizer System	1			
114	Gluten Dryer	Protein Packing And Ton Bag Packing	1			
115	Gluten Dryer	Bag Filter	1			
116	120 Tph Post Cleaning	Conveying System For Maize Dust 3 Tph Capacity	1			

11 7	Plant Drawings	Complete Plant Drawings	1	YUANQT2023678 Dtd: 14-06-2024	16,273,41 3.00
Total					2,280,97 2,897

Supplier's Credentials – The Company has considered reputed manufacturers for proposed project. The P&M Suppliers are having adequate experience and expertise to supply the equipment and provide after sales service as per agreed specifications.

- **Alfa Laval**, established in 1937 in India, manufactures and supplies key components and systems in separation, heat transfer, and flow technology. Their product lineup includes plate and spiral heat exchangers, centrifugal separators, decanters, and flow equipment. Alfa Laval serves various industries, including food processing, dairy, edible oil processing, sugar production, pharmaceuticals, biotechnology, brewery, distillery, starch, pulp and paper, inorganic chemicals, petrochemicals, oil and gas, marine, energy, effluent handling, and steel and metal.
- **New AVM Systechn Pvt Ltd**, established in 2004 in Pune, Maharashtra, manufactures and supplies a broad portfolio of industrial drying systems and cooling systems. Their product lineup includes spray dryers, spray coolers, rotary dryers, fluid bed dryers, and more. They cater to various industries, including food products, chemicals, pharmaceuticals, and textiles.
- **Oushangyuan Process & Equipment Intelligent Co.** founded in 2011, Tianjin, China, is a National High-tech Enterprise integrating the whole EPC process of consulting, R&D, design, procurement, construction, training, operation, maintenance, equipment manufacturing, and other comprehensive services. Yuan Co. is also an industry explorer and technology leader in the industry, guided by the overall process design of starch, modified starch, starch syrup, liquid sucrose, biological fermentation, synthetic biotechnology and material grade lactic acid production line, and takes design, manufacturing, installation and commissioning of the core intelligent equipment as the main business.
- **Bhagwat Engineering Pvt. Ltd.** is a company that provides engineering solutions focused on the design, fabrication, and installation of equipment for industries such as chemicals and starch processing. With over 15 years in the field, they operate a workshop equipped for producing stainless steel and mild steel structures, as well as various process plant equipment and material handling systems. Their product offerings

include machinery like evaporators and conveyors, catering to a diverse range of clients across India and beyond.

Electricals Equipment & Instrumentation

The company has estimated Electrical cost of INR 320.20 million for proposed 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor.

INR million

S. No	Equipment Name	Qty	Supplier Name	GS T %	Basic Value	GST Amount	Total Cost
1	DCS, PANELS	1	SIGMA AUTOMATION & INSTRUMENTS	18%	89.00	16.02	105.02
2	VFD PANELS	1	SIGMA AUTOMATION & INSTRUMENTS	18%	3.84	0.69	4.53
3	HT SUBSTATION WORK (TRANSFORMER, DG , HT VCB)	1	VL ENGINEERS	18%	37.59	6.77	44.36
4	CABLE & TERMINATION	1	VL ENGINEERS	18%	37.03	6.66	43.69
5	CABLE TRAY & SUPPORT	1	VL ENGINEERS	18%	5.97	1.07	7.04
6	EARTHING & LIGHTNING PROTECTION	1	VL ENGINEERS	18%	2.73	0.49	3.22
7	INDOOR & OUTDOOR LIGHTING	1	VL ENGINEERS	18%	6.20	1.12	7.32
8	LT PANELS	1	VL ENGINEERS	18%	55.58	10.00	65.59
9	SANDWITCH BBT	1	VL ENGINEERS	18%	10.17	1.83	12.00
10	HYBRID RTPFC PANELS	1	VL ENGINEERS	18%	4.51	0.81	5.32
11	INTERNAL WIRING FOR LIGHTING	1	VL ENGINEERS	18%	3.00	0.54	3.54
12	DG SETS	1	VL ENGINEERS	18%	15.75	2.83	18.58
	TOTAL	12	-		271.36	48.84	320.20

Electrical Quotations - The Company has provided INR 320.20 million of quotations for the project under consideration. It seems the Electrical cost is based on budgetary quotations or estimated cost. The Company to arrange firm quotations and review the contract before placing the final orders on respective suppliers.

Sr · No	Supplier	Ref: Quotation No. / Date	Specificatio ns	Total Amount in INR	Total Amount in INR incl. Tax.	Delive ry Period	Validi ty	Rema rk
1	Sigma Automati on & Instrumen ts	SAI/2425/PBL/A M-5025 Dtd: 13-09-2024	DCS Automation System	8,90,00,000. 00	10,50,20,000 .00	16-18 Weeks	180 Days	As on date quote is valid
		SAI/2425/PBL/P -1256 Dtd:13- 09-2024	VFD Pannels	38,43,000 .00	45,34,740 .00	-	15 Days	Compa ny needs to obtain new Quote
2	V L Engineers	NA Dtd:14-09- 2024	Electrical for 1200 TPD Starch Plant	17,85,16,211.00	21,06,49,128 .98	-	Valid upto Dtd. 31-03- 2025	As on date quote is valid
Total				27,13,59,211. 00	32,02,03,868. 98			
Source: PBPL								

Supplier's Credentials – The Company has considered reputed manufacturers for proposed project. The Electrical Equipment Suppliers are having adequate experience and expertise to supply the equipment and provide after sales service as per agreed specifications.

- **Sigma Automation & Instruments**, established in 2009 in Rajahmundry, Andhra Pradesh, provides comprehensive automation and instrumentation solutions. They specialize in customized and scalable process automation, electrical and control systems, and field instrumentation. Their product range includes DCS, PLC, SCADA, HMI, VFD modules, and motors, focusing on efficiency and reliability. They serve various industries, including pharmaceuticals, food and beverage, power, sugar, cement, and oil and gas.
- **VL Engineers**, established in Miraj, Maharashtra, provides electrical consulting services. With over 38 years of experience, they design and implement energy-efficient electrical systems for various industries. Their services include E.H.V. systems, H.V. systems, sub-stations, and switchyards.

Installed Capacity

The company has identified the major suppliers for the proposed 1,200 TPD maize processing plant. These include M/s. Oushangyuan Process & Equipment Intelligent Co., M/s. Bhagwat Engg. Pvt. Ltd., Ltd., M/s. Alfa Laval India Private Limited, and M/s. New AVM Systech Pvt. Ltd.

M/s. Bhagwat Engg. Pvt. Ltd. is supplying 7-stage tanks, corn secondary grinding, germ separator, and germ washing equipment with a capacity of 1200 TPD. Jiangsu Grand Drying And Concentrating Equipment Co., Ltd. is providing two grinding mills and pin mills with a capacity of 920 TPD each, two germ dewatering units with a capacity of 500 TPD each, a germ tube bundle dryer, fiber dewatering equipment with a capacity of 500 TPD each, a fiber tube bundle dryer, a corn gluten dryer, and a CSL+fiber dryer, all based on 1200 TPD corn grinding.

YUAN - M/s. Oushangyuan Process & Equipment Intelligent Co. is responsible for technology transfer, screw conveying equipment, rotary filters, filter press, decanters, starch and fiber automatic ton bag packing system, and peeler centrifuge and product conveying, all based on 1200 TPD corn grinding. M/s. Alfa Laval India Private Limited is supplying a high-speed nozzle centrifuge for corn wet mill and starch-gluten separation, and a falling film evaporator for CSL evaporation, both based on 1200 TPD corn grinding.

M/s. New AVM Systech Pvt. Ltd. is providing a flash dryer and pneumatic conveying system for starch with an output capacity of 12,000 kgs/hr x 3.

Based on the above, the plant's installed capacity at 100% utilization, considering input material, material yield, and process loss for the main and co products, is reasonable, subject to the Company obtains performance guarantee from the key suppliers to ensure achievability of the proposed installed capacity.

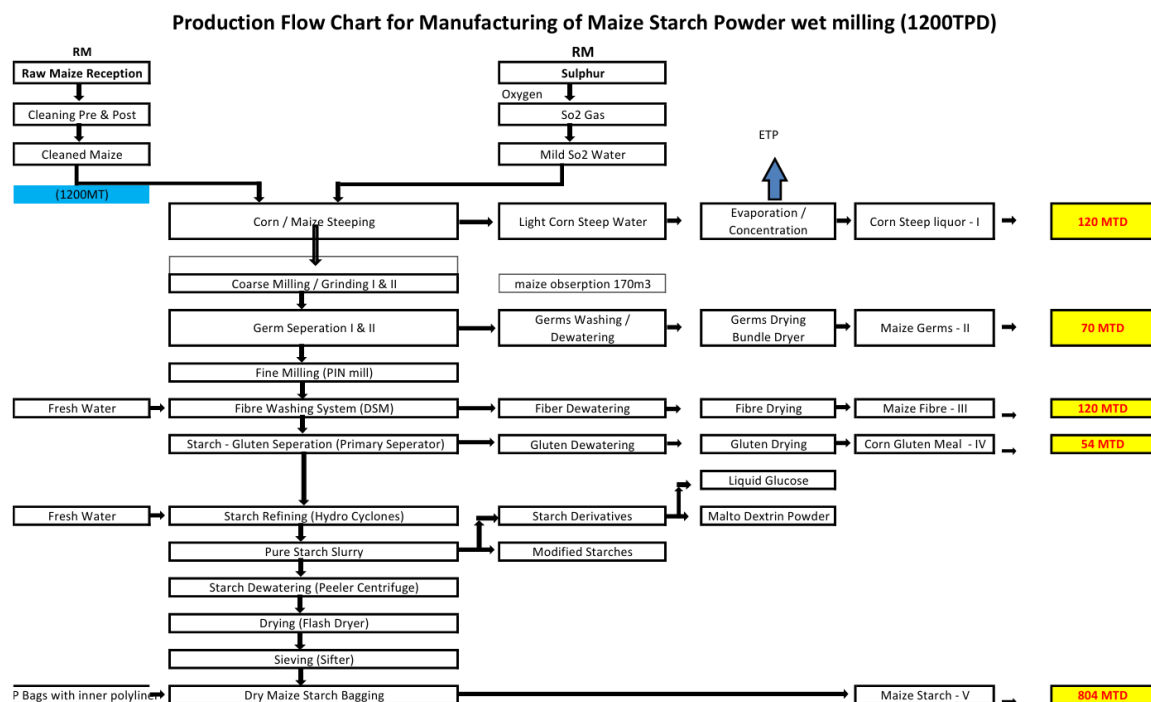
Capacity calculation as furnished by the company is exhibited below –

Capacity Calculation			
Sr. No.	Particulars	Unit	Value
1	Crushing Per Day	TPD	1,200.00
2	No of Working Days	Days/Annum	330.00
3	Installed Capacity	TPA	396,000.00
4	Standard Yields		
5	Germs	%	6.50%
6	Fibre	%	10.00%
7	Gluten	%	4.50%

Capacity Calculation			
Sr. No.	Particulars	Unit	Value
8	CSL	%	10.00%
9	Starch	%	67.00%
10	Total	%	98.00%
11	Product		Std Production @ 100 % Capacity
12	Starch	TPD	804.00
13	Total Starch	TPD	804.00
14	Germ	TPD	78.00
15	Fibre	TPD	120.00
16	Gluten	TPD	54.00
17	CSL	TPD	120.00
18	Total Co products	TPD	372.00
Total		TPD	1,176.00
Source: PBL			

Estimated production is achievable considering maize contains starch level between 65 and 70 %. The company has to ensure procurement of quality maize to achieve targeted production.

Production Flow chart as furnished by the company is exhibited below –



Raw Material

The Company has identified Maize as raw material to establish 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor.

Maize, also known as corn, is a highly versatile and widely cultivated crop. It serves as an excellent raw material for a variety of products due to its rich composition of starch, protein, fiber, and oil. Maize's diverse components and their wide range of applications make it an excellent raw material for various industries. From food products to industrial applications, maize starch processing can yield numerous valuable products, contributing significantly to the economy.

Madhya Pradesh (MP) is one of the leading states in India for maize production. Here are some key points about the availability of maize in MP:

- **Maize Production in Madhya Pradesh**
 - **Cultivation Area:** Maize is cultivated in an area of approximately 1.54 million hectares in MP.
 - **Production Volume:** The state produces around 3.91 million tons of maize annually.

- **Seasons:** Maize can be grown throughout the year in MP, including the kharif, rabi, and zaid seasons.
- **Productivity:** The average productivity of maize in MP is about 2.92 tons per hectare.
- **Major Maize-Producing Districts** - Key districts in MP known for maize cultivation include Chhindwara, Betul, Sehore, Hoshangabad and Dewas.
- **Economic Importance** -Maize is a crucial crop for the state's economy, providing raw material for various industries, including food processing, animal feed, and biofuel production.
- **Government Support** - The state government provides various schemes and support to farmers to enhance maize production, including subsidies on seeds, fertilizers, and irrigation facilities.

Raw Material Consumption as per Industry norms –

The consumption norms of maize as a raw material in a maize processing plant can vary based on the efficiency of the processing technology and the specific products being produced. Here are some general guidelines for the consumption of maize to produce starch, germs, fiber, gluten, and corn steep liquor:

General Consumption Norms

- **Starch Production:**
 - **Input:** Approximately 1 ton of maize can yield about 600-700 kg of starch.
 - **Co products:** The remaining co products include fiber, gluten, and germ.
- **Germ Extraction:**
 - **Input:** From 1 ton of maize, around 45-50 kg of germ can be extracted.
 - **Uses:** The germ is primarily used for oil extraction.
- **Fiber Production:**
 - **Input:** The fiber content from 1 ton of maize is approximately 100-120 kg.
 - **Uses:** Fiber is used in animal feed and dietary supplements.
- **Gluten Production:**
 - **Input:** From 1 ton of maize, about 60-70 kg of gluten can be obtained.
 - **Uses:** Gluten is used in animal feed and as a natural herbicide.

- **Corn Steep Liquor (CSL):**

- **Input:** The steeping process of 1 ton of maize produces around 100-120 liters of corn steep liquor.
- **Uses:** CSL is used in fermentation processes and as a nutrient-rich feed ingredient.

Efficiency and Variability

- **Efficiency:** The efficiency of the extraction processes can vary based on the technology and methods used in the plant.
- **Quality of Maize:** The quality and type of maize can also affect the yield of each product. Higher quality maize typically results in better yields.

As per the market information, average raw material rate for destination is about Rs. 20,000 - 25,000/- per MT, though the actual average rate would vary with the starch content / yield.

The Raw material required for the proposed unit is easily available in the nearby market.

Power

The Company has estimated connected load of approximately 12,000 KW which would be sourced from state power grid to establish 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Mohasa Babai Industrial Area, Narmadapuram, Madhya Pradesh.

PBL has indicated that the 12,000 KW figure encompasses both equipment and lighting loads. The section-wise power demand analysis, including the plant's lighting load, is provided in annexure.

Power tariff for the proposed unit is considered INR 7.50 per unit.

Fuel

Approximately 49.50 TPH of steam is needed for the proposed 1,200 TPD maize processing plant. With a 95% utilization rate, a 55 TPH boiler has been identified is sufficient for the planned production facility.

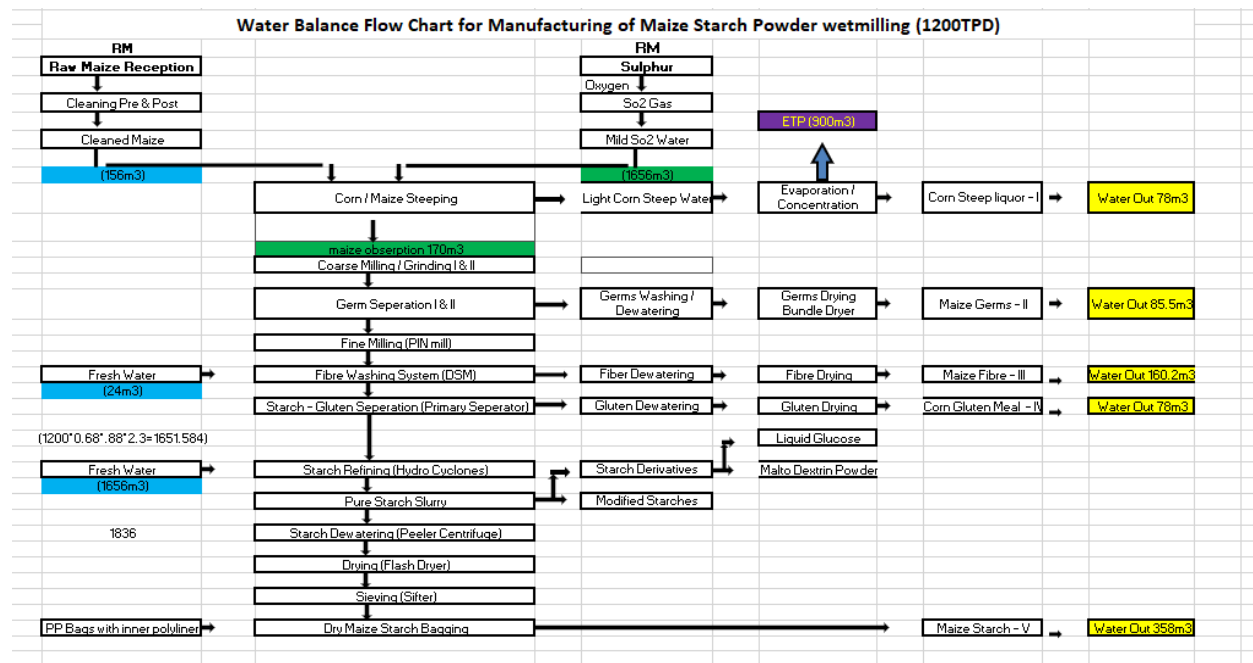
The company has proposed Forbesvyncke Pvt. Ltd make 55TPH Boiler for proposed project. The estimated fuel consumption is given below for Biomass Briquette and Rice Husk having Gross Calorific Value is 4,100Kcal/Kg and 3,200Kcal/Kg respectively.

Water

Total 1,836 KLD of fresh water is required for proposed 1,200 TPD Maize Processing plant. PBL would source it from common WTP. The MPIDC has installed a common WTP having capacity of 23 MLD which sources the water from Narmada River.

The cost of water per kiloliter (KL) sourced from the Water Treatment Plant (WTP) of the Madhya Pradesh Industrial Development Corporation (MPIDC) is INR 24.5/KL.

Water Balance Diagram as furnished by company is exhibited below –

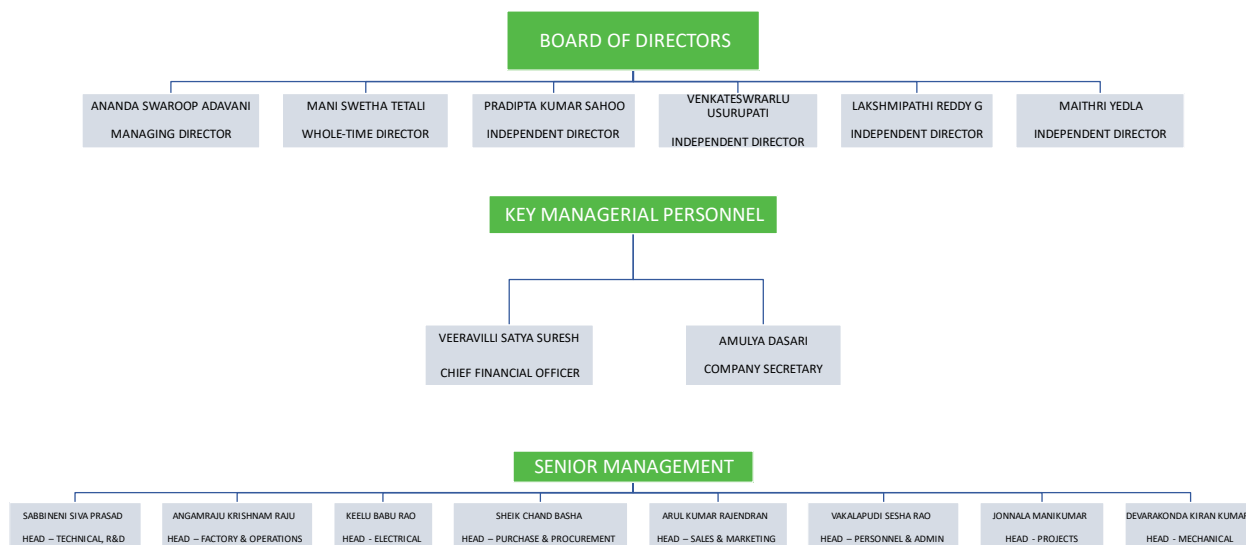


Manpower

PBL has identified 360 no's of employees for proposed Maize Processing plant. The 360 no's of employees are adequate for proposed project.

Manpower Required		
Sr. No.	Description	Nos
1	Head of the Departments	10.00
2	Managerial	20.00
3	Supervisor / Technical	25.00
4	Administration	25.00
5	Skilled Workers	200.00
6	Semi-Skilled	50.00
7	Security Staff	10.00
8	Unskilled Workers	20.00
Total		360.00
Source: PBL		

Organization Chart as furnished by the company is exhibited below –



Source: PBL

ETP (Effluent Treatment Plant)

ETP is integrated with evaporation system & decantation system as part of the effluent treatment plant to achieve zero discharge norms as stipulated by MOEF. The product at the desired concentration is obtained at the outlet of the final effect. Each effect is provided with recirculation cum transfer pumps. The condensate from surface condensers is collected in a common condensate pot. The condensate is transferred for further treatment / drain by using centrifugal pump. The system operates under vacuum. Watering vacuum pumps are used to maintain a desired vacuum. Cooling water from cooling tower is used in the surface condensers for condensing the vapors.

The company has identified a 1200 KLPD ETP plant to treat the 900 KLPD of effluent generated by the proposed maize processing plant. This identified plant is sufficient to handle the effluent treatment needs.

STP (Sewage Treatment Plant)

Sewage is the waste generated from residential, institutional, commercial and industrial establishments. STP plant treats the sewage to make it fit for safe disposal, agricultural use or domestic use in toilets etc.

According to the CPCB's legislative regulations, numerous infrastructures such as apartments, commercial construction projects, educational institutions, townships, industries and area development projects that meet specified conditions must include sewage treatment plants.

The company has identified 200 KLPD STP plant for proposed Maize Processing plant.

Project Implementation Schedule

Paramesu Biotech Pvt. Ltd (PBL) is planning to establish 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Mohasa Babai Industrial Area, Narmadapuram, Madhya Pradesh.

Presently, the Company has acquired the land. Considering pending activities including bank finance, civil work, plant & machinery, statutory approvals and process validation, the commercial operation may be achieved in April 2026.

Activity	Start Date	End Date
Land – Acquired	Completed	
Site Development	Dec-24	Mar-25
Civil & Structural Work	Jan-25	Aug-25
Plant and Machinery	Jan-25	Dec-25
Plant Installations and Commissioning	Jan-26	Feb-26
Trial Production Run	Feb-26	Mar-26
Commercial Production	Apr-26	

Proposed schedule seems can be achievable subject to

- Company obtains required statutory approvals on time
- Company procures plant & machinery on time and strictly adheres to the proposed implementation schedule post receipt of the mandatory approvals to track.
- The Company does not encounter any unforeseen circumstances such as resurgence of Covid-19, which may adversely affect the delivery of P&M on time.

D&B India advises the Company to strictly adhere to the implementation schedule, obtain necessary approvals, funds, plant and machineries on time to avoid any time over-run.

GMP (Good Manufacturing Practice)

GMP (Good Manufacturing Practice) in the food industry refers to a set of guidelines and regulations that ensure the quality, safety, and consistency of food products. The main goal of GMP is to prevent contamination, adulteration, and misbranding of food products.

Key aspects of GMP in the food industry:

- Personal Hygiene: Cleanliness, sanitation, and hygiene practices for personnel.
- Facility Design: Clean, well-maintained, and pest-free facilities.
- Equipment Maintenance: Regular maintenance, cleaning, and sanitizing of equipment.
- Raw Material Control: Quality control of raw materials and ingredients.
- Manufacturing Process Control: Monitoring and controlling the manufacturing process.
- Packaging and Labeling: Accurate labeling and packaging of products.

- Quality Control: Regular testing and inspection of products.
- Documentation and Record-Keeping: Accurate records of production, testing, and distribution.
- Pest Control: Control of pests and rodents.
- Training and Education: Ongoing training and education for personnel.

Benefits of GMP in the food industry:

- Ensures food safety.
- Prevents contamination.
- Maintains product quality.
- Compliance with regulations
- Enhances customer trust.
- Reduces recalls and rejections.
- Improves efficiency and productivity.
- Supports continuous improvement.

Regulatory agencies like the FDA (Food and Drug Administration) enforce GMP guidelines to ensure the food industry meets these standards.

The Company is legally obliged to prepare, implement and monitor GMP guidelines.

The Company has already obtained GMP certificate for its existing facility.

Safety Measures

Safety and health are the industry's top priority. Accident-Free Industry is a challenge to the industry to improve its safety performance to a level where there are no workplace incidents that result in an injury or illness to employees or contractors. Nothing is more important than the safety and health of the people that work in the plant.

- **Environmental Management System Certification** – It is recommended to implement ISO 14000 – 1996 standard. This scheme helps the industrial units to demonstrate their commitment to environmental protection, prevention of pollution and compliance with environmental legislation.
- **Earthquake Resistance** – The proposed construction is required to be checked and approved for earthquake resistance by reputed structural consultant for design adequacy.
- **Storm Water Drainage** – Adequate majeure is required for plant safety from flood.

The Company is required to address safety majeure.

Disaster Managemnt

Disaster management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters. These plans cover prevention, preparedness, relief and recovery.

- **Disaster prevention** activities are designed to provide permanent protection from disasters. Not all disasters, particularly natural disasters, can be prevented, but the risk of loss of life and injury can be mitigated with good evacuation plans, environmental planning and design standards.
- **Disaster preparedness** activities are designed to minimize loss of life and damage – for example by removing people and property from a threatened location and by facilitating timely and effective rescue, relief and rehabilitation. Preparedness is the main way of reducing the impact of disasters.
- **Disaster relief** is a coordinated multi-agency response to reduce the impact of a disaster and its long-term results. Relief activities include rescue, relocation, providing food and water, preventing disease and disability, repairing vital services such as telecommunications and transport, providing temporary shelter and emergency health care.
- **Disaster recovery** – Once emergency needs have been met and the initial crisis is over, the people affected and the communities that support them are still vulnerable. Recovery activities include rebuilding infrastructure, health care and rehabilitation. These should blend with development activities, such as building human resources for health and developing policies and practices to avoid similar situations in future.

It is required to implement, monitor, and control the Disaster Management System by PBL for resources safety.

Statutory Approvals

The current status of Statutory Approvals exhibited below.

Statutory Approval				
Sr. No.	Permission/ Approval	Ref No/ Date	Agency - Issuing Authority	Remark
Existing Unit				

1	Certificate of Incorporation Consequent upon conversion to public company	U24232AP2011PLC076378 Dtd: 12-07-2024	Government of India Ministry of Corporate Affairs	Certificate of Incorporation solidifies legal status and facilitates business operations. Paramesu Biotech Private Limited Which Was Originally Incorporated On Seventh Day Of September Two Thousand Eleven Under Companies Act, 1956 As Paramesu Biotech Private Limited And Upon An Intimation Made For Conversion Into Public Company.
2	MSME Registration	NA	Ministry of Micro, Small and Medium Enterprises.	The MSME criteria classify enterprises based on a maximum investment of ₹50 crore in plant and machinery and a turnover limit of ₹250 crore; therefore, it is not applicable in the case of PBL, as its plant and machinery cost exceeds ₹50 crore.
3	IEM Amendment Certificate	-	Ministry of Commerce & Industry, Department For Promotion of Industry and Internal Trade	An Industrial Entrepreneur Memorandum (IEM) is a legal document that allows entrepreneurs to undertake industrial projects in India. IEM facilitates industrial growth and regulatory compliance. Company to furnish IEM.
4	Registration Certificate - Form GST REG-06	23AAGCP7805B1ZS Dtd: 04-10-2024	Government of India	The GST Registration Certificate in Form GST REG-06 serves as proof

				that an individual or entity is registered under the Goods and Services Tax (GST) system. Received Form GST.
5	PAN	AAGCP7805B Dtd:07-09-2011	Income tax pan services unit	The Permanent Account Number (PAN) serves as a crucial identifier for individuals with the Tax Department. Received PAN
6	TAN	BPLPI1625F Dtd: 06-10-2024	National Securities Depository Ltd.	TAN is a unique alphanumeric code issued by the Income Tax Department in India. It is mandatory for individuals or entities responsible for Tax Deduction at Source (TDS) or Tax Collection at Source (TCS). Received TAN for PBL.
7	MOA & AOA	CIN No. U24232AP2011PLC076378 Dtd: 23-08-2011	Registrar of Companies	The MOA outlines external aspects and objectives, the AOA governs internal regulations and day-to-day functioning of the company. Recived MOA & AOA
8	Consent to Operate & Authorization Order	APPCB/KKD/2913110/HO/CTO/2023 Dtd: 11-01-2024	AP Pollution Control Board	Consent to Operate (CTO) is in the context of environmental regulations and industrial operations, CTO ensures responsible industrial operation while safeguarding the

				environment. Recived Consent to Operate for AP Unit
9	Factory License	45815 Dtd: 23-01-2015	Directorate Industrial Safety & health	A factory license demonstrates responsible business practices and adherence to safety guidelines. Recived Factory license for PBPL Devarapali unit
10	Certificate of Registration Quality Management System	305024031492Q Dtd: 14-03-2024	Quality Research Organization	For Manufacturing And Supply Of Maize Starch And Its Co products Like Corn Gluten Meal, Maize Germ, Maize Bran (Fiber), Corn Steep Liquor, Modified Starches. Starch Derivatives - Liquid Glucose And Maltodextrin. Valid till 13-03-2027
11	Certificate of Registration Environmental Management System	305024031494E Dtd: 14-03-2024	Quality Research Organization	For Manufacturing And Supply Of Maize Starch And Its Co products Like Corn Gluten Meal, Maize Germ, Maize Bran (Fiber), Corn Steep Liquor, Modified Starches. Starch Derivatives - Liquid Glucose And Maltodextrin. Valid till 13-03-2027
12	Certificate of Registration Food safety management systems	305024031495F Dtd: 14-03-2024	Quality Research Organization	For Manufacturing And Supply Of Maize Starch And Its Co products Like Corn Gluten Meal, Maize Germ, Maize Bran (Fiber), Corn

				Steep Liquor, Modified Starches. Starch Derivatives - Liquid Glucose And Maltodextrin. Valid till 13-03-2027
13	Certificate of Registration Occupational Health and Safety Management System	305024031496HS Dtd: 14-03-2024	Quality Research Organization	For Manufacturing And Supply Of Maize Starch And Its Co products Like Corn Gluten Meal, Maize Germ, Maize Bran (Fiber), Corn Steep Liquor, Modified Starches. Starch Derivatives - Liquid Glucose And Maltodextrin. Valid till 13-03-2027
14	Halal Certificate	HIP23170115 Dtd: 27-01-2024	Halal India	Halal Certificate for manufacturing starch and its derivative. Certificate is valid till 26-01-2025
15	Fssai License	10020044001962 Dtd: 09-11-2023	Fssai	Fssai License to manufacturer - General Manufacturing, Substances Added to Food, Exporter - Manufacturer at PBPL Andhra Pradesh unit
16	Fire NOC	21102/EGV/MSB/2024 Dtd: 26-02-2024	Director State Fire Prevention Services : Regional Fire Officer	A Fire NOC (No Objection Certificate) is essential for various types of buildings and establishments. Fire NOC is crucial for safety and adherence to state guidelines during construction and occupancy. Recived Fire NOC.

17	Certificate of Recognition Two Star Export house	VSPSTATAPPLY00000107AM24 Dtd:10-10-2023	Ministry of Commerce and Industry. Directorate General of Foreign Trade	Received
18	Registration cum Membership Certificate	NA Dtd:09-08-2020	Agricultural and Processed Food Products Export Development Authority	Received, this certificate is valid till : 13-07-2025
19	Ground water Department	GWD/ELR/TS/S.W/989/2012-2013 Dtd:16-11-2012	Ground Water Department	Received Ground water NOC
20	IEC	2615900811 Dtd: 16-06-2015	Directorate General of Foreign Trade	Received
21	Kosher Certificate	NA Dtd: 22-02-2024	Keneseth Elijahoo Synagogue	To Certify that the product " Maize Starch Powder " Being Exported Abroad by M/S Paramesu Biotech Private Limited. This Certificate is not valid after 21 Feb 2025
22	Extension of Electrical HT Supply Approval	1131/14 Dtd: 02-12-2014	Eastern power Distribution Company of A. P. Ltd.	Extension of Electrical HT Supply Approval received
23	Trade Mark Registration	4202129 Dtd: 10-06-2019	Trade Marks Registry	Trade Mark Registration Received
24	Certificate of Compliance - Good Manufacturing Practices (GMP)	DAAS-PAL-000229 Dtd: 04-07-2023	Directorate of Accreditation for Assessment Services	This certificate is valid from 04-July-2023 until 03-July-2026

Proposed Unit				
During & After Land Acquisition				
25	Acknowledgement Certificate	NA Dtd. 06-09-2024	MP Industrial Development Corporation Ltd.	The Acknowledgement Certificate under the section 7(2) of the Madhya Pradesh Udyogon Ki Sthapna Evam Parichalan Ka Sralikaran Adhyadesh 2023 is hearby grandted to M/s. Paramesu Biotech Ltd. This Acknowledgement Certificate entitles the industrial unit exemption from obtaining approval including Registration of principal Employer employing inter state migrant worker and under contract labor, Fire Approval Plan, Trade License, Development plan approval, Building construction permission, Registration of Boiler, Electrical Safety Certificate, Approval of Factory Plan, Factory License, Registration under shops and establishment act and Registration (of establishment employing Building and other construction worker)
26	Land Registered Sales Deed	MPI69782024A11082050 Dtd: 30-08-2024	Registered Sales Deed	Recived Land Deed

27	Land Allotment Letter	MPIDC/RO/Narmadapuram/2024/346 Dtd. 29-08-2024	MP Industrial Development Corporation Ltd	Letter for allotment of land parcel situated at Plot No. A-4, A-5 & A-6 of area admeasuring 4,44,331 Sq. Mt. (44.433 Gect) in I/A Mohasa-Babai, Dist Narmadapuram, MP for amount deposited of INR 34,69,54,856.00
28	Soil test report	SGEC/RJY/SL/091/08/2024 Dtd. 27-08-2024	Sri Godavari Engineering Consultants (India) Pvt. Ltd.	Recived Soil Test Report at manufacturing of maize starch factory at Babai - Mohasa, Narmadapuram, MP.
29	Plate Load Test Report	NA	Sri Godavari Engineering Consultants (India) Pvt. Ltd.	Recived Plate Load Test Report at manufacturing of maize starch factory at Babai - Mohasa, Narmadapuram, MP.
30	Consent to Establish	CTE-61163 Dtd. 07-10-2024	M.P. Pollution Control Board	Consent to Establish (CTE) is a crucial step for entrepreneurs planning to set up a new manufacturing business. CTE ensures responsible industrial setup and adherence to environmental regulations. Grant of Consent to Establish up to 30/09/2029 for setting up of an industrial plant/activities at A4,A5,A6, Sector A, Mohasa Babai Industrial Area Phase I, Village/City: Muhasa, Tehsil: Babai, Dist. Hoshangabad (Narmadapuram)

Before Plant Construction				
31	Layout and building plan approvals	-	Local Authority	Recived Acknowledgement Certificate from MP Industrial Development Corporation Ltd.
32	Construction permission	-	Development Authority	Construction permits are essential for various reasons, ensuring safety, compliance, and orderly development. Recived Acknowledgement Certificate from MP Industrial Development Corporation Ltd.
33	Temporary Power Connection	CZNSCI480102 Dtd: 22-10-2024	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Co. Ltd.	Received Estimate report for 80 KW (Ref: 149510 Dtd: 26-09-24) for temporary connection whereas the load sanctioned is 40 KW valid from 22-10-2024 to 21-11-2024
34	Fire NOC	-	Director State Fire Prevention Services : Regional Fire Officer	A Fire NOC (No Objection Certificate) is essential for various types of buildings and establishments. Fire NOC is crucial for safety and adherence to state guidelines during construction and occupancy. Recived Acknowledgement Certificate from MP Industrial Development Corporation Ltd.
35	Fssai License	-	Fssai	Company to furnish Fssai License to

				proposed Maize processing plant
36	Sanction order for Water connection	390 Dtd. 18-09-2024	MP Industrial Development Corporation Ltd.	Water rights refer to legal permissions granted to individuals or entities for using water from a specified source. These rights regulate how water can be used for various purposes. Recived Sanction order for Water connection of 100 KLD at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist Narmadapuram, MP
During Plant Installation				
37	Power Sanction	-	State Electricity Board	Company to avail the permission for Power Sanction
38	Factory License	-	Directorate Industrial Safety & health	A factory license demonstrates responsible business practices and adherence to safety guidelines. Company to obtain Factory license. Recived Acknowledgement Certificate from MP Industrial Development Corporation Ltd.
39	Electrical Safety approval	-	State Electricity Board	Electrical Safety Approval is crucial for ensuring the safety of electrical products and equipment. Recived Acknowledgement Certificate from MP Industrial Development Corporation Ltd.

40	Boiler certificate	-	Boiler Inspector	A Boiler Installation Certificate serves as proof that a boiler has been correctly installed and is safe to use. Received Acknowledgement Certificate from MP Industrial Development Corporation Ltd.
After Plant Trial				
41	Systems test certificate	-	Respective Suppliers	A Systems Test Certificate in the production industry typically verifies that a system or product meets specific performance, safety, or quality standards. The company should obtain the Systems Test certificate before conducting the trial run.
42	Consent to Operate	-	Pollution Control Board	Consent to Operate (CTO) is in the context of environmental regulations and industrial operations, CTO ensures responsible industrial operation while safeguarding the environment. The Consent to Operate certificate will be submitted after the systems test

43	Plant Commissioning Certificate	-	Respective Suppliers	A Plant Commissioning Certificate is a document issued after successful completion of commissioning tests for a specific plant or facility. It verifies that the plant's systems and components meet design specifications and contractual requirements. The certificate for plant commissioning will be submitted after the trial run.
Source : PBPL				

Market Assessment

Profile

Maize is the third largest grown food grain in India, after rice and wheat. Unlike rice and wheat -which are predominantly used to meet the food demand- maize has applications beyond the food industry. In its grain form maize is used in animal feed industry while products obtained by processing maize is used in food & beverage industry, pharmaceutical industry, paper processing, chemical industry as well as cosmetics industry.

Maize Processing: Type of Milling Processes	
Dry Milling	Involves de-germination and removal of husk by means of aspirators. Additionally, germ so separated is dried and later processed to manufacture corn oil. Further, separated germ is also used to produce grit, meal and flour.
Wet Milling	This process is largely used to manufacture maize starch, with maize oil (Germ), liquor and gluten being the side products.
Maize Processing: Key Products	
Corn Starch	Maize starch extracted from the kernel of corn is a prime ingredient in packaged food as well as industrial sector. In food products, maize starch is used as thickening agent and gelling agents in the preparation of soups, sauces and puddings. It is also used as a binder and stabilizer in the preparation of salad dressings and bakery products. Binding property of maize starch has seen its application in pharmaceutical industry in the manufacture of oral dosages like tablets. Its industrial uses include improve dry strength and surface improvement in paper manufacturing. It is also used in textile manufacturing to improve the strength of yarn.
Liquid Glucose	Higher dextrose content enables liquid glucose to be used as a sweetener in food & beverage industry. In food & beverage production liquid glucose is used as nutritional supplement and as a sweetener in confectionary and bakery products. In pharmaceutical sector liquid glucose is used as nutritional supplement in oral tablets and buffering agent in injections. In animal feed sector liquid glucose is used as a buffering agent in veterinary medicine and nutrition supplement in animal feed.

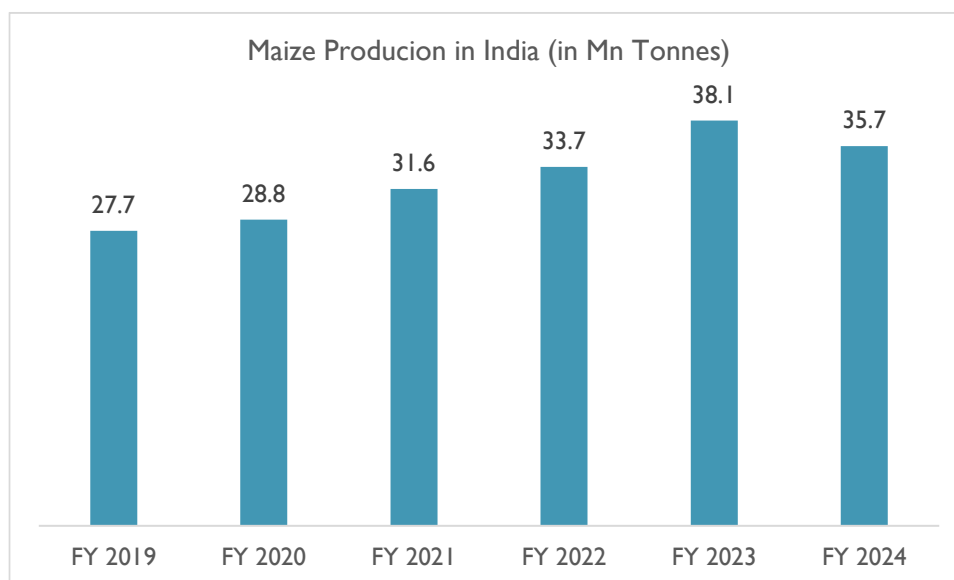
Maltodextrin	Maltodextrin is a polysaccharide produced by partial hydrolysis of starch and is generally produced in the form of a white spray dried powder. It has low dextrose content and is moderately sweet, thus cannot be used as a sweetener. Maltodextrin is widely used in food & beverage industry as stabilizer and thickener in packaged food production, in the preparation of salad dressings, soups and sauces, baked goods, yogurt, and nutrition bars. It also has nonfood applications, in sectors as diverse as pharmaceuticals, paper processing, chemical manufacturing, and cosmetics among others. However, food & beverage sector its most significant end user.
Maize Germ	Maize germ or corn germ is the co product obtained during the crushing of maize. Maize germ consist of 40 to 50% of oil content and is used to extract oil. Post the extraction of oil, the resultant material is used as an ingredient in animal feed.
Gluten	One of the byproduct of corn milling process, gluten is widely used as a supplement in animal feed. In addition, it is also used as herbicide.

Production Scenario

Maize Production Pattern

India is amongst the top ten maize producers in the world, contributing to nearly 2 to 3% of global maize production. The country is also one of the key exporters of maize, ranked among the top 5 global exporters. Domestically, maize production accounts for 9% of the total food grain production in India. This makes it the third most grown food grain in India, after rice and wheat.

India's maize market saw notable developments. The production for 2023-24 was estimated at 356.73 LMT, a 6.33% decline from the previous year, with major production drops in Madhya Pradesh and Karnataka. The area under maize cultivation for 2023-24 was lower than in 2022-23, although kharif season sowing showed a 13.61% increase compared to the previous year. Key states contributing to kharif maize production included Karnataka (18%), Madhya Pradesh (17%), Maharashtra (9%), and Rajasthan (7%). Mandi arrivals in July 2024 reached 7.97 LMT, a 26.31% year-on-year increase, while prices rose to INR 2185.80 per quintal, 19.44% higher than in July 2023, and slightly above the INR 2090 MSP. Globally, maize prices in July 2024 averaged USD 177/MT, down 27% from July 2023, driven by a 6% increase in global production.

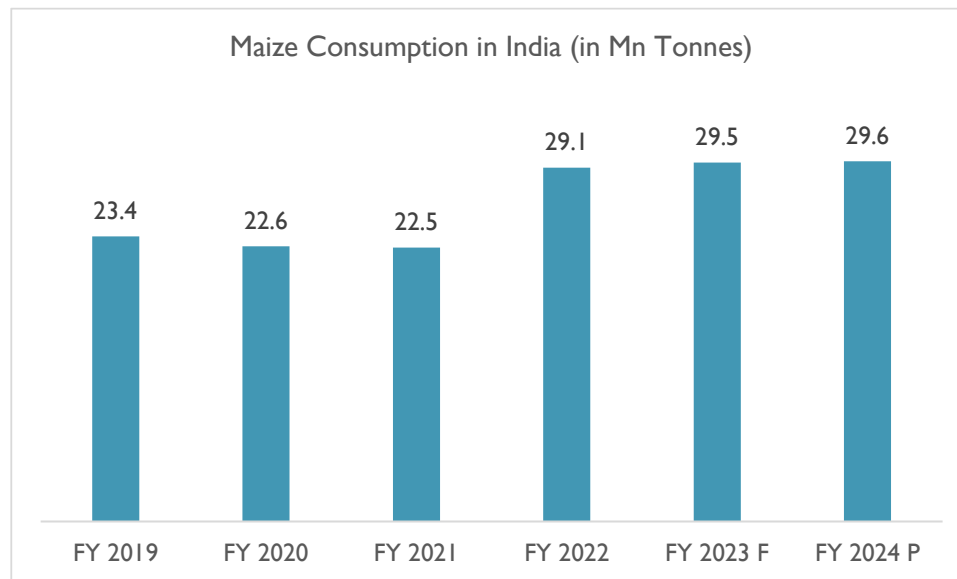


Source: Ministry of Agriculture & Farmers Welfare

Maize Consumption Pattern

The US is the largest consumer of maize globally, accounting for nearly one third of total global maize consumption. This is followed by China which accounts for slightly more than one fifth of the global consumption. Consumption in India is comparatively less, estimated to account for roughly 2% of global consumption volumes.

Domestic apparent consumption of maize is projected to reach ~30 million tonnes per annum in FY 2024. Apparent consumption increased by a CAGR of 2.5% during the last five years (FY 2019-24). Animal feed industry is the largest consumer of maize in India, accounting for nearly 63% of total consumption. Among animal feed it is used mainly for poultry feed and livestock feed. Outside the feed industry, direct consumption is a key end use of maize. This industry accounts for nearly 23% of total maize consumed in the country. Starch together with food sector accounts for nearly 35% of total maize consumed, ranking it the second largest end user after feed industry.



Dun & Bradstreet Research

Demand from Feed Industry

Nearly 63% of the maize consumed in the country is accounted by feed industry, while about 20% is consumed for industrial purposes (including manufacturing of food & beverage products). Thus, these two end use segments have the biggest influence over the maize demand pattern in the country.

India's compound feed industry has been growing by 5 to 7% per annum, over the past few years. Demand growth is driven by poultry, dairy and aqua feed. The steady growth in compound animal feed can be traced back to the increasing demand for animal protein among Indian consumers. Lifestyle changes, improvement in income levels, changing consumption pattern, and demographic shift is causing dietary changes in India. Indians, mostly the urban population is moving away from a carbohydrate rich diet to a protein rich diet, and this protein is coming mainly from animal sources.

India is witnessing a drastic change in its food consumption pattern as the share of animal protein is steadily increasing. As per a study the per capita animal protein consumption in India has increased by nearly 82% between 1980 and 2013. Increasing affluence and changing food consumption pattern are two of the several factors that are driving animal protein consumption in India. Poultry was the most produced meat in India in FY 2019, almost 50% of the total meat production across the country was contributed by poultry. This was followed by buffalo meat. However, cattle were the smallest contributor to the total meat production across the country in that year.

The per capita availability of milk in India increased from under 303 grams/day in FY 2022 to over 459 grams/day while the per capita availability of eggs reached 101 eggs per annum in 2022-23, up from 62 eggs in 2014-15. Similar increase has also happened in meat production.

The increase in these animal products has invariably been associated with an increase in the population of livestock, poultry, pigs and fish. This increase in animal population has directly led to an increase in animal feed. Further, the advances in animal husbandry practices meant more and more farmers were using compound feeds and other manufactured feeds, supplementing with regular dry/wet fodder. The stress on improving productivity and yield has led more and more farmers to adopt commercial feed. Consequently, the demand for commercial animal feed has increased manifold.

Since maize the main ingredient in compound feed, the increasing demand for animal feed would directly translate to higher demand for maize. Currently poultry feed and livestock feed together accounts for nearly 63% of maize consumption. Given this dominance, any demand fluctuations in animal feed industry could have an impact on maize availability for other sectors.

Status of Maize Processing

The food service market in India is highly unorganized, with nearly 65% of the operation spread among small and medium sized players. The scenario is similar in maize processing segment too, with small mills with limited capacity dominating the industry. However, the organized segment is witnessing fast growth. The changing consumer preferences with higher demand for processed food, and Government focus on promoting food processing industry is attracting serious players. The organized segment is expected to grow in size in the coming years and would increase its market share.

Maize processing is carried out through two distinct processes – dry milling & wet milling – with each process yielding distinct products. Dry milling produces grits, maize flour and minimal amount of meal. While wet milling is used to produce maize starch and other co products like maize oil, steep liquor, gluten and other value-added products. The focus here is on wet milling, as that process yields the most value-added products.

Globally, the wet milling of maize is dominated by North American market followed by Europe, primarily because of the higher usage of value-added products derived. However, all studies point to a future scenario wherein maize wet milling is expected to take off in Asia Pacific market. This assumption is based on the pattern of demand growth for various maize value-added products in markets like India and China. Starch, modified starch and other value-added products derived from maize has applications in sectors like textiles, paper, pharmaceuticals, food & beverages, and consumer products among others.

Coincidentally all these products have seen a spike in demand as well as production in Asia Pacific market over the past ten to fifteen years. The consumption story that propelled demand for maize value-added products in the US and Europe is currently playing out in India and China. This development forms the bedrock of maize processing (wet milling) industry in Asia Pacific market, and prompting industry insiders to predict how Asia Pacific will rise to become a dominant force in maize wet milling.

According to industry sources, the global market for maize wet milling is estimated to be worth USD 72 Bn, and it is expected to grow by a CAGR of 5% during the decade 2020 to 2030. As mentioned earlier Asia Pacific would be a key player while demand from industrial sector would strengthen.

Indian Scenario

Maize wet milling continues to be forte of unorganized players in the country, with only few large plants capable of producing at industrial scale. Food processing has been traditionally an unorganized segment, and this business background naturally extended to maize wet milling. Moreover, the demand side – be it textile mills or paper mills – too is fragmented with numerous small and medium sized units. The unorganized customer segment demanded consumption volumes which are not huge and at lower prices. The unique demand pattern was best met by the unorganized maize processing mills.

However, Indian economy as such has undergone a transition. Textile and paper segment have seen the emergence of large mills with production capacity on par with international players. The explosion in domestic demand as well as the strides made by Indian firms in capturing export market has necessitated the need for huge facilities. Although SME segment continue to play a strong role, the last 10 to 15 years has seen the rise of truly large textile and paper mills.

Thus, there arose large consumers of maize starch – whose consumption volumes could not be met by the smaller maize processing units. Moreover, the starch procurement pattern of these consumers was notably different as they focused more on product quality and timely delivery, as against purely selection on product price.

There was also maturing of some new consumer segments, notably pharmaceuticals and food & beverage segment. Pharma was always a strong sector in India, but the pharma units were rarely procuring pharma grade starch from domestic players. They were primarily importing, as the domestic players were not able to meet the stringent quality norms. As for the food & beverage industry, the consumption story that has driven Indian economy forward has created huge demand for processed and packaged food and beverage products. The urban middle class consumers, exposed to western lifestyle and aided by higher disposable income, started consuming more of processed food. This steady demand for processed food saw the rise of large food & beverage companies in India, as well as the entry of multinationals.

Thus, the demand landscape for maize starch underwent drastic changes in the past decade. This forced the maize processing industry to undergo changes, by means of investing in capacity expansion as well as improving their production technology. As a result, the industry saw the emergence of few large players capable of processing large volumes of maize.

Major Players

Sayaji Industries Limited (SIL)	SIL has been active in maize wet milling segment for more than 70 years. It started as a producer of native starch with a modest maize crushing capacity of one ton per day. Now the Company supplies native starch as well as modified starch products like liquid glucose, dextrose monohydrate, dextrose anhydrous and sorbitol. The company currently has the capacity to manufacture 200 tonnes per day of starch, 90 tonnes per day of liquid glucose.
Cargill India	This is the subsidiary of US based Cargill, which is one of the largest food corporations in the world. Cargill India had set up a wet milling plant for

	maize processing in 2016 in Karnataka. The plant has a capacity to process nearly 1,200 tonnes of maize per day.
HL Agro	The Company is a leading player in starch and sesame seed segment in India. Their starch portfolio includes native maize starch as well as derivatives like liquid glucose, gluten and germ. The Company operates a wet milling unit in Kanpur, Uttar Pradesh. The facility can produce 120 tonnes of maize starch and 80 tonnes of liquid glucose per day.

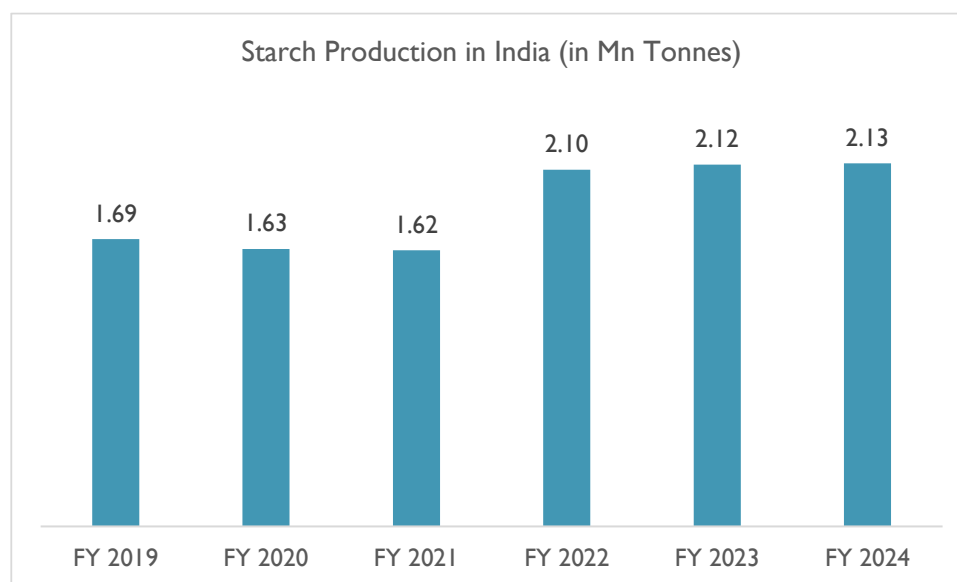
Demand from Starch & Processed Foods Industry

Industrial applications, which includes production of starch and additives for food processing industry, is the second largest usage of maize in the country. Globally more than half of starch produced is converted into different derivatives which are in turn used as food additives. In US and EU region which has a well-developed food processing industry this proportion is as high as 60%.

In India too, food processing sector forms the largest consumer of starch derivatives; its share estimated to be close 50%, lower than global average. Demand for starch derivatives in the country is driven primary by food processing sector. In food processing sector starch derivatives is used in infant foods, instant foods, confectionary, bakery products, and other processed foods. Apart from food starch derivatives are also used in pharmaceutical preparations as additives.

Maize Starch Production

Maize starch production in India is estimated to be 2.13 million tonnes per annum in FY 2024, with production increasing by a CAGR of ~5% during FY 2019-24.



Dun & Bradstreet Research

The starch market comprises of starch & starch derivatives like modified starch, maltodextrin, cyclodextrin, glucose syrups, hydrolysates and others. Textile, paper, pharmaceutical, confectionary and FMCG are some of the bulk consumers of maize starch. In terms of application, starch is used as native starch, modified starch and sweeteners.

Starch Derivatives

Starch, a polysaccharide composed of glucose units, is a vital carbohydrate sourced from plants, particularly corn, potatoes, and wheat. Its derivatives play a crucial role across multiple industries, thanks to their unique physicochemical properties. This overview delves into the primary starch derivatives—germs, fiber, gluten, and corn steep liquor (CSL)—along with their derivatives like liquid glucose and maltodextrin (MDP), highlighting their characteristics and application areas.

Starch Derivative	Characteristics	Key Applications
Starch Germs	- Nutrient-Rich: Contains essential fatty acids, protein, and vitamins, contributing to overall health. - Antioxidant Properties: Contains phytochemicals that may help in reducing oxidative stress.	- Food Industry: Used in nutritional supplements and health foods (e.g., smoothies, protein bars) to enhance nutritional value. - Animal Feed: Incorporates into livestock Feed to improve growth rates and health, providing a source of high-quality protein.
Starch Fiber	- Resistant Starch: Not fully digestible in the small intestine, promoting gut health by acting as a prebiotic. - Blood Sugar Control: Helps regulate blood sugar levels, beneficial for diabetic patients.	- Food Industry: Added to bakery products, pasta, and snacks to increase dietary fiber content, improving texture and mouthfeel. - Health Products: Used in functional foods designed for digestive health, such as high-fiber cereals and health bars targeting weight management.
Starch Gluten	- Elasticity and Strength: Provides elasticity and chewiness, essential for the structure of baked goods. - Water Absorption: Binds with water, enhancing the moisture retention of baked goods.	- Baking: Critical in bread, pastries, and pasta, contributing to texture, rise, and overall quality of the product. - Meat Alternatives: Utilized in the production of plant-based meat products (e.g., seitan) to mimic the texture and chewiness of meat, catering to vegetarian and vegan consumers.
Corn Steep Liquor	- Rich in Nutrients: Contains amino acids, vitamins, and minerals, supporting microbial growth. - High Solubility: Easily soluble in water,	- Fermentation: Widely used in the production of antibiotics, amino acids, and organic acids, providing essential nutrients for fermentation processes. - Animal Feed: Acts as a nutritional supplement in livestock feed, enhancing growth rates and improving

	facilitating incorporation into various formulations.	gut health, making it a valuable ingredient in animal husbandry.
Liquid Glucose	- Viscous and Sweet: A clear syrup with a mildly sweet taste, high solubility, and stability. - Humectant Properties: Retains moisture in food products, extending shelf life.	- Food and Beverage: Commonly Used as a sweetening agent in candies, ice creams, and beverages to enhance flavour and improve texture. - Pharmaceuticals: Serves as a binding agent in tablets and syrups, improving drug delivery and taste. Its moisture-retaining Properties also prevent the crystallization of sugars in formulations.
Maltodextrin (MDP)	- Polysaccharide: White, powdery substance with a mild flavour and low sweetness. - Easily Digestible: Rapidly broken down into glucose, providing a quick energy source.	- Food Industry: Used as a thickener, filler, or stabilizer in processed foods, sauces, and snacks, improving texture without significantly altering flavour. - Sports Nutrition: Incorporated in energy drinks and nutritional supplements for quick energy release, making it ideal for athletes and active individuals. Its easy digestibility aids in rapid Absorption during physical activities.

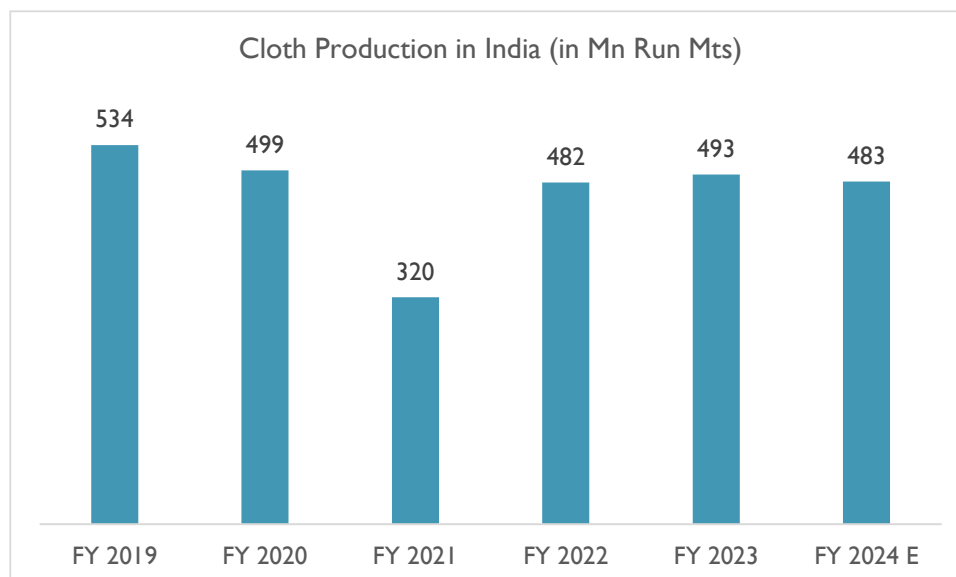
Native Starch Demand Scenario

Native maize starch or unmodified maize starch is used in the manufacture of paper products, in textile industry as laundry starch, as additives in canned foods & food mixes, and molding starch. The application of native starch is primarily in the industry sector, where it is consumed in bulk by the textile and paper industry.

Demand from textile mills

In textile industry, native starch is used to provide stiffness & add weight to cloths. It is also used extensively in the sizing of yarns and finishing of cotton & polyester fabrics. Thus, cotton and synthetic textile mills are some of the largest consumers of native starch in the country.

Cloth production in India witnessed a drop in the past couple of years, as annual production fell from a high of 534 million run mts in FY 2019 to 320 million run mts in FY 2021. A combination of slower growth in economy in FY 2020 followed with covid-19 induced disruption in the subsequent years played a role in this decline. However, FY 2022 has seen a reversal as production increased by 34% over previous year thereby arresting two years of negative growth.



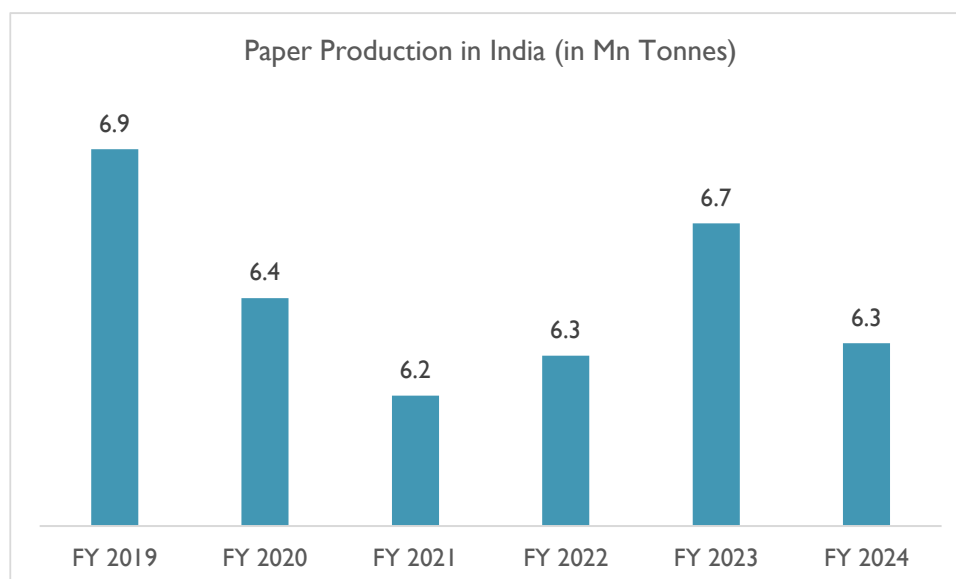
Source: CMIE, Dun & Bradstreet Estimates

The economic impact caused by the pandemic has almost subsided and pent-up demand has accelerated the economic growth. After two years of near inactivity, consumer spending has improved significantly, and this has spilled into higher demand for all consumer products. This development has also benefitted the apparel industry, which explains the higher production. This augurs well for maize starch industry, as production growth would create higher demand for maize starch from cloth manufacturers.

Demand from paper industry

Starch is the third most commonly used raw material in paper mills, after cellulose fiber and mineral fillers. It is used for three major stages in paper mills, namely wet end section for internal sizing, size press for surface sizing, and size press or off-machine application for coating. Thus, paper industry consumes considerable volume of native starch on an annual basis.

India is the 15th largest paper producer in the world and has emerged as one of the fastest growing markets globally. The domestic market / consumption of paper is over 19 million tonnes per annum (TPA), which is met through a mix of domestic production and imports. The domestic production has been on a downward trend for the past couple of years. However, at nearly 6.3 million tonnes, annual production of paper in the country is still substantial enough to support the demand for input materials like starch.



Source: CMIE Industry Outlook

From a demand perspective, the paper demand in the country is poised to remain stable. Steady economic activity is warranting a stable demand for paper products from business segment (namely office and academic segments). While the rising concern against plastic packaging is proving to be a boon for paper packaging, as retailers are switching over to sustainable packaging options, with paper being the top choice. With plastic packaging set to be phased off, demand for paper from packaging applications is expected to grow exponentially in the coming years.

This steady paper demand would ensure that paper production continues to remain at the same level in the foreseeable future. Moreover, this also points to a steady demand for all the raw materials used, including native starch.

Modified Starch Demand Scenario

Native starch is processed to overcome shortcomings in freeze & thaw stability, retrogradation and paste clarity, among others. Modification of starch includes process like esterification, etherification, and pregelatinization, among others. This processing converts native starch into modified starch, which has application in food and non-food industries.

Food applications of modified starch include its usage as thickening agent, stabilizer or emulsifier. It finds application in the production of baking & canned foods (like biscuits, breads, savory snacks), food coloring, canned fruits & vegetables, condiments (gravies, pickles, salad dressings), confectionaries (gum, chocolate, marshmallows), meat products (processed meat products / cold cuts), mixes (cake mixes, dessert mixes etc), among others. Thus, the usage of modified maize starch is spread across processed food industry, finding application in almost all types of food & beverage products.

Major non-food application of modified starch includes its usage as a binding agent & disintegrating agent in tablets.

Demand from food & beverage industry

India consumption pattern have witnessed probably its most wide ranging changes in the past two decades. The combination of higher disposable income, aspirational changes, demographical shift, and advances in food processing have played a part in this consumption story. As a result, the demand for packaging and processed food & beverage products has almost exploded. Today India is one of the fastest growing food & beverage markets among developed worlds, attracting all major global food & beverage companies.

This positive demand growth in consumption has resulting in an equally rapid transition in the back end food processing sector. Moreover, realizing the job creation potential of food industry, the Government has been rolling out initiatives and programs to support the growth in food processing industry. Today India's food processing industry accounts for 32% of country's food market and contributes to nearly 8.80% of manufacturing GVA.

Consumption of processed and packaged food is increasing as consumption pattern in urban markets and to a lesser extend in rural markets is undergoing a transition. A young population, higher disposable income, abundant availability of processed food at affordable price points and increasing influence of western consumption pattern which is tilted in favor of processed food. The sale of biscuits, bakery products, confectionaries and ready to eat / semi-processed food has been increasing. Almost all companies operating in food & beverages space has built up an impressive portfolio of processed and instant foods.

This has ensured that the demand for modified starch for food application would continue to grow at a steady rate in the coming years.

Demand from Pharmaceutical industry

Modified starch products like maltodextrins is used in pharmaceutical preparations such as tablets, capsules and other oral dosages. It is used as tablet disintegrants and excipients among others. Consequently, higher production of pharmaceutical products would in turn trigger higher demand for modified starch products used in drug formulations.

Indian pharmaceutical sector has become the global manufacturing hub for low cost generic drugs and active pharmaceutical ingredients. In addition, development of associated segments like Contract Research and Manufacturing Services and Clinical Research services have further helped in the growth of the industry. Superior production technology which helped produce low-cost drugs compliant with global standards played a big part in Indian pharmaceutical companies become a leading player in international market. Today almost all large Indian pharmaceutical companies derive more than 50% of their annual revenue from exports.

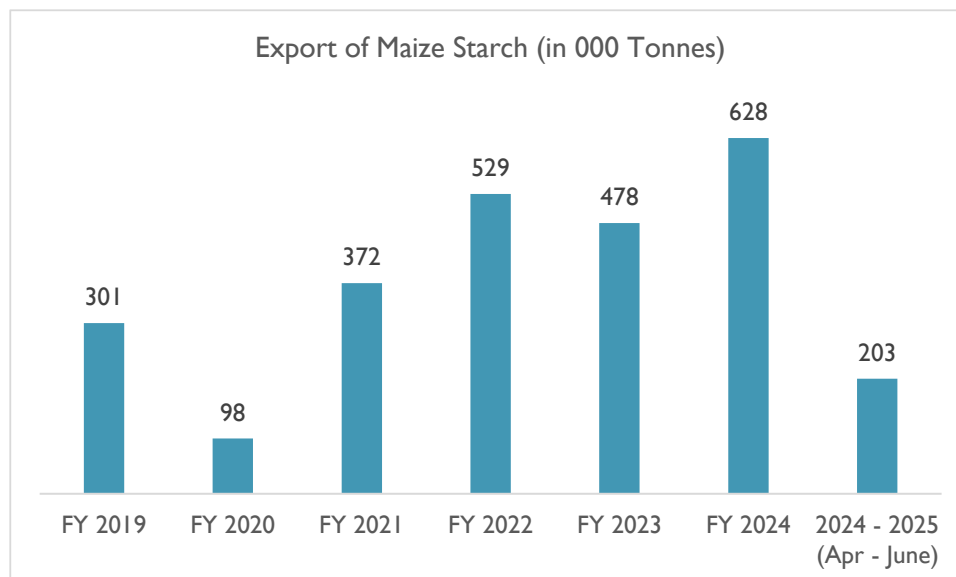
The domestic demand for drugs & pharmaceuticals is driven by increasing number of old populations, higher spending on healthcare, penetration of health insurance products, as well as rise in incidence of diseases. Exports also plays a large part in shaping the demand scenario in the industry, as India is the largest exporter of generic medicines in the world.

As the acceptance of generic drugs increases in the developed markets, particularly the US, India's position in the global generic market will continue to rise. The move in the US market towards an affordable healthcare framework, aided by supportive Government policies, will augur well for Indian companies already present in the US market. Exports, which has been the mainstay of Indian pharmaceutical space, would be instrumental in driving the future growth.

Thus, the manufacturing of pharmaceutical products is expected to increase steadily, as demand from domestic and export market increases. This would create a steady demand for all input materials used in pharma manufacturing, including modified starch.

Export of Maize Starch

Maize starch exports from India witnessed a strong increase in the past couple of years, after a drastic drop in FY 2020. Annual volume of exports reached a record high of nearly 529,000 tonnes in FY 2022. Aggressive growth in exports to Malaysia and Indonesia have played a major role in increasing overall maize starch exports from India. The combined volume of maize starch exported to Indonesia and Malaysia in FY 2023 and FY 2024 was nearly 278,845 tonnes and 366,005 tonnes respectively. In both the years, this accounted for 50 – 70% of total volume of maize starch exported from India.



Source: Directorate General of Foreign Trade, HS code 11081200

Globally, South American countries of Argentina and Brazil are two of the major exporters of corn and corn products. South Asian countries, which is witnessing a strong demand in corn from animal feed as well as food & beverage industries depend on these countries to meet their demand. However, a drought like condition in 2018 in the South American region has led to lower corn production, consequently impacting the corn exports from the region. This have forced the traditional importers like Malaysia and Indonesia to depend on alternative sources. Indian corn & corn product industry has benefitted by this development, and this explains the sudden surge in exports of corn starch that has happened post FY 2020.

Regulatory Scenario

Government of India has given a priority sector status to food processing sector in new manufacturing policy 2011. National Mission on Food Processing, the flagship government program in food processing sector aims to increase the percentage of food processed from current 10% to 20% in the next decade.

National Mission on Food Processing (NMFP)

- This was launched in 12th Five Year Plan. Approved by the cabinet committee in August 2012, NMFP is expected to be implemented along with State Government cooperation. The contribution ratio of Centre and State government in Northeast is estimated to be 90:10 while in other states (excluding north east states) it is estimated to be 75:25.

- One of the main objectives of NMFP is the decentralization in the implementation of schemes in the sector, leading to greater involvement of State Government / Union territories.
- MOFPI has introduced human resource development (HRD) scheme in the food processing sector which will be implemented through State Governments under the NFPM. The scheme has the following four components

FDI in Food Processing Sector

Government has permitted up to 100% FDI under automatic route in all processed food segment except for items reserved for Micro and Small Enterprises (MSEs). For manufacture of items reserved for MSEs, FDI is permissible under automatic route up to 24% of the capital. If foreign investment is more than 24 per cent, it will require government route. Automatic Government approval is also provided for projects which involve technology transfer to the local partner.

Additionally, RBI has included loans to food and agro based processing units as eligible to be classified as priority sector lending. However, the central bank has placed an upper limit to such loans. The upper limit specified is USD 15.38 million per borrower. This move is expected to encourage banks to lend to the food processing sector. Such a low level could be beneficial to small enterprise, mostly companies in MSME sector whose capital requirement tend to be lower. Additionally, the Government has also created a special fund to extend credit to food processing industry. This fund, titled “Food Processing Fund” has a corpus of USD 300 million. The target group for this fund is both food processing parks as well as individual units within the food processing parks.

Foreign Direct Investment (FDI) in India's food processing sector has seen fluctuations, with a notable 30% decline in FY 2023-24, totaling INR 5,037 crore (\$610 million), down from INR 7,194 crore (\$875 million) in 2022-23. Historically, FDI inflows in the sector have varied, with investments of INR 5,290 crore in 2021-22, INR 2,934 crore in 2020-21, INR 6,414 crore in 2019-20, INR 4,430 crore in 2018-19, and INR 5,835 crore in 2017-18. Cumulatively, from April 2000 to March 2024, the sector has attracted around \$12.58 billion in FDI, contributing 1.85% of India's total FDI equity inflows.

Government Focus

Inter-ministerial panel set up by the Government to improve farm income is expected to have a positive impact on maize farming in the country. One of the focus areas of the panel is crop diversification, as the Government urges the farming community to reduce its dependence on one crop (primarily paddy). To promote maize cultivation, the Government has increased the Minimum Support Price on maize, bringing it in line with other major crops like wheat and rice.

Further hybridization is another area where the Government focus is increasing. To improve the maize yield in India, hybrid seeds are being promote among farming community. The Government through its National Food Mission

Security is providing hybrid maize seeds at subsidized rates. Further the Government is also providing agriculture machineries like seed / grain dryers, sheller and seed planter, primarily in the states of Punjab, Haryana and Uttar Pradesh. These states are traditionally paddy & wheat producing states and crop diversification is the lowest, hence the increased focus.

This higher focus in maize is due to the increase in demand from its traditional consumer base – poultry feed and animal feed, as well as from food processing sectors (for value added products like starch and glucose).

Public Private Partnership for Integrated Agriculture Development (PPPIAD)

PPPIAD scheme was formulated to increase the involvement of private enterprises in agriculture sector, in a bid to improve the productivity as well as improve farm income. Under this policy a state can team up with private sector players to implement large scale integrated agriculture projects. The engagement would be end-to-end, from production to marketing of the produce.

Mega Food Park Scheme

Creating support infrastructure in agri /horticulture zone for setting up food processing units. The food park would include supply chain infrastructure including collection centers, primary processing centers, central processing centers, cold chain, and about 25 – 30 plots for entrepreneurs to set up food processing units.

As of 2024, 24 Mega Food Parks are operational, while 17 remain under implementation out of the 41 projects approved by the Ministry of Food Processing Industries. Ongoing projects include those in Andhra Pradesh, Arunachal Pradesh, Bihar, Gujarat, Haryana, and Telangana. Efforts continue to complete the remaining parks and strengthen the food processing infrastructure.

Integrated Cold Chain and Value Addition Infrastructure

The objective of this scheme is to provide cold chain and preservation infrastructure to reduce wastage of agro /horticulture produce. The scheme provides for creation of infrastructure across the entire supply chain, including pre-cooling, weighing, grading, waxing facilities, multi-product/multi temperature cold storage, blast freezing in distribution hub and reefer vans, mobile cooling units, and CA storage.

The Integrated Cold Chain and Value Addition Infrastructure scheme, part of the Pradhan Mantri Kisan Sampada Yojana (PMKSY), is designed to improve India's food processing sector by establishing a comprehensive cold chain system. Its objectives include reducing post-harvest losses, enhancing farmer income, and promoting the value addition of agricultural products. The scheme offers financial assistance of up to ₹10 crore per project, with grants of 35% for general areas and 50% for difficult areas. It supports the development of facilities such as cold storage units, refrigerated transport, and processing centers. Open to various entities including cooperatives and NGOs, the scheme has approved 372 projects, created significant preservation and processing capacities, benefiting

approximately 35.53 lakh farmers and generating 2.23 lakh jobs. However, it faces challenges like infrastructure gaps in refrigerated transport, limited farmer awareness, and the need for continuous investment to keep up with food production and consumption demands. Overall, it plays a crucial role in enhancing food quality, reducing waste, and boosting farmer incomes by improving the cold chain infrastructure.

Creation/Expansion of Food Processing/Preservation Capacities

The Creation/Expansion of Food Processing and Preservation Capacities (CEFPPC) Scheme, initiated by the Government of India, aims to modernize the food processing sector by increasing processing capacities, improving preservation techniques, and reducing food wastage. The scheme provides financial assistance of 35% for projects in general areas and 50% in North-Eastern and difficult areas. It supports various sectors including fruits, vegetables, dairy, meat, and fish, and can be implemented by public and private entities, cooperatives, and NGOs. In 2022, the scheme approved 120 proposals with a total investment of INR 1,672.05 crore, enhancing infrastructure and supply chain efficiency. Challenges include low awareness and gaps in related infrastructure. Overall, the scheme is vital for modernizing food processing, reducing wastage, and boosting farmers' incomes.

Agro Food Processing Cluster

The objective of the scheme is setting up of modern infrastructure and common facilities which would encourage entrepreneurs to set up food processing units based on cluster approach. This involves linking farmers/ producers to the processing firms and markets through a well-developed supply chain infrastructure.

An agro processing cluster coming up under this scheme would have two basic components: basic enabling infrastructure (roads, water supply, power supply, drainage, ETP etc), and core infrastructure/common facilities (warehouses, cold storages, IQF, tetra pack, sorting, grading etc). Such a cluster would also have at least 5 food processing units with a minimum investment of INR 25 Crore

The Ministry of Food Processing Industries has mapped the agri-production clusters in the country, and preference would be given for investors willing to set up food processing units in the vicinity of these clusters.

The Agro Processing Cluster Scheme, part of the Pradhan Mantri Kisan Sampada Yojana (PMKSY), is designed to modernize India's food processing sector by developing infrastructure and promoting entrepreneurship in food processing clusters. The scheme focuses on building infrastructure close to production areas, providing comprehensive preservation facilities, and creating strong supply chain linkages. Each cluster requires a minimum investment of INR 25 crores and must include at least five processing units on at least 10 acres of land. It offers financial assistance of 35% of the project cost in general areas and 50% in Northeastern and difficult areas, up to INR 10 crore per project. The scheme also aims to create 500 to 1,500 jobs per cluster. To date, 56 projects have been approved, aiming to enhance food processing capabilities and reduce post-harvest losses

Creation of Backward and Forward Infrastructure

The objective of this scheme is to create an efficient backward and forward integration for processed food industry. Financial assistance for setting up primary processing centers/ collection centers at farm gate and modern retail outlets at front end, along with refrigerated transport for connectivity. Perishable horticulture and non-horticulture products are covered under this scheme.

Production Linked Incentive (PLI) Scheme for Food Processing Industry

The Production Linked Incentive (PLI) Scheme for the Food Processing Industry was launched by the Government of India on March 31, 2021, with a total budget of INR 10,900 crores. Set to run from 2021-22 to 2026-27, the scheme aims to enhance the competitiveness and capacity of the food processing sector by supporting the creation of global food manufacturing champions, promoting Indian food brands, increasing off-farm employment, and ensuring better prices for farm produce.

The scheme targets four key product segments: Ready-to-Cook/Ready-to-Eat Foods, Processed Fruits and Vegetables, Marine Products, and Mozzarella Cheese. It also supports SMEs, particularly those producing innovative and organic products. Financial incentives are provided for branding and marketing Indian food products internationally. Additionally, a specific PLI Scheme for Millet-based Products was introduced for FY 2022-23 with an outlay of INR 800 crores, utilizing savings from the main scheme.

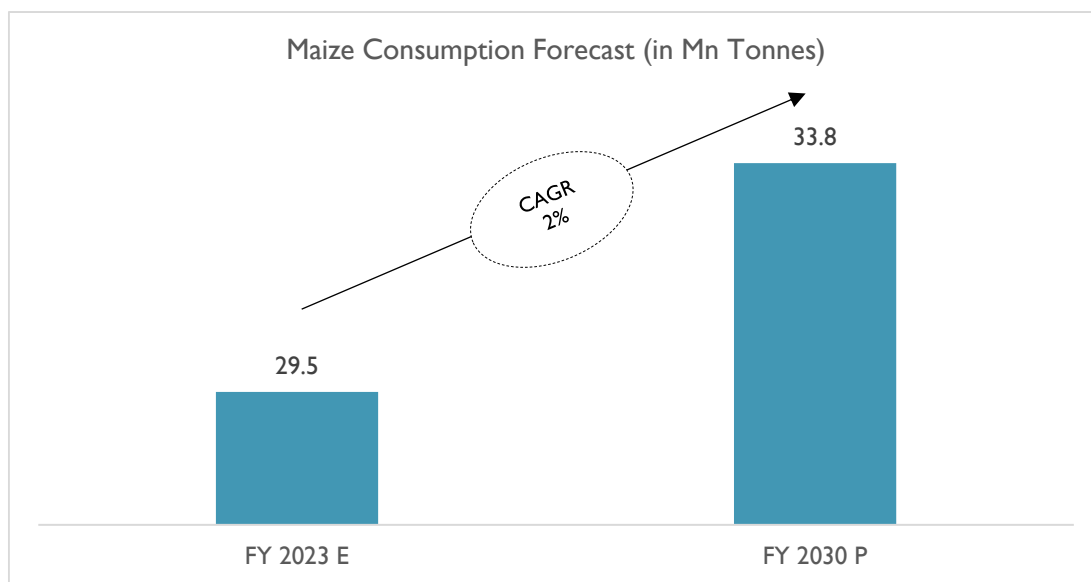
As of September 2023, the scheme has facilitated approximately INR 33,500 crores in investments, with beneficiaries reporting cumulative investments of INR 7,126 crores and sales of INR 49,825 crores. In FY 2021-22, incentives totaling INR 584.30 crores were disbursed across various product segments. The scheme is projected to create about 2.5 lakh jobs over its duration, with around 2,37,335 jobs already generated. Overall, the PLI Scheme is a strategic effort to boost the food processing sector's infrastructure, enhance competitiveness, and improve farmers' incomes while generating significant employment opportunities.

Growth Forecast

Consumption of bakery products and confectionaries is estimated to remain strong, as food consumption habits have irreversibly turned into the favor of processed foods. Consequently, demand for input materials used in the production of bakery and confectionary products is expected to remain strong. This is expected to benefit corn products like corn grit, corn germ and value-added products like modified starch and sweeteners which are widely used in processed foods.

Additionally, commercialization of poultry farming, and animal husbandry have resulted in higher demand for input materials like prepared poultry and cattle feeds. Milled maize products like maize meal is one of the key ingredients in the production of poultry and cattle feed. With higher demand for animal protein, demand for poultry – one of the major constituent of animal protein – products would increase, resulting in higher demand for poultry feed. Further, demand for value-added products used in industrial sectors like pharmaceuticals would continue to benefit from the growth of its end consumer industries.

According to industry estimates, the consumption of maize is set to touch nearly 33.8¹ million tonnes by FY 2030, up from the current level of nearly 28.5 million tonnes. The biggest demand would come from the feed sector. The demand for animal protein is increasing at a faster rate, and to meet this demand animal husbandry industry needs to raise its yield. Compound feed would play a major role in meeting this goal, and this would require strong demand for maize.



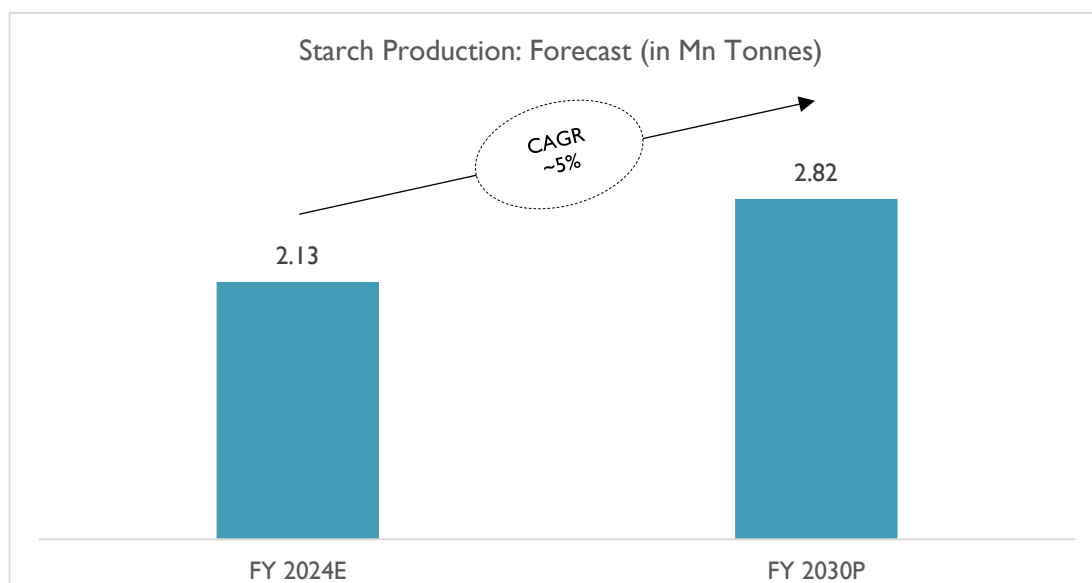
¹ FICCI – Yes Bank Report

Source: Dun & Bradstreet Research

Similarly, the consumption of processing and packaged food products is increasing at a fast pace. The changing consumption and lifestyle among Indian consumers would keep the demand for such food products stable. Since maize starch is an integral component of the processed & packaged food industry, the growth in food & beverage products would subsequently lead to higher demand for maize starch and derivatives.

Apart from food industry, the demand for native starch from industrial sectors like textile and paper would remain strong. India has a well-developed textile and paper mill base, and both these industries are witnessing steady demand growth. The consumption story playing out in India broadly forecast an optimistic demand scenario for textile products. Similarly, the developments in packaging sector as well as business & academics sectors is promising a steady demand for paper products. Subsequently capacity growth in both these segments would ensure a hike in the volume of starch used for manufacturing process.

Based on above developments, the demand for both native and modified starch is expected to increase. This would subsequently result in an expansion in starch production in India. Annual production is expected to increase by a CAGR of ~5% during FY 2024-2030 to reach 2.82 million tonnes per annum.



Source: Dun and Bradstreet Research & Estimates

From FY 2024 to FY 2030, starch production is projected to grow from 2.13 million tonnes to 2.82 million tonnes, reflecting a compound annual growth rate (CAGR) of approximately 5%. This anticipated growth is driven by increasing demand across various sectors, including food, pharmaceuticals, and textiles. The forecast underscores the significance of starch in the industrial sector and its expanding role in addressing both domestic and global market needs.

Competitive Scenario

Maize wet milling is capital intensive, with high upfront investment, due to the high cost of machinery used in the manufacturing process. Furthermore, wet milling is the most energy intensive process in the food & kindred product industry. This high energy cost along with raw material procurement cost results in higher operating cost for maize mills. The high entry barrier created by high upfront investment as well as high operating cost (on account of raw material procurement cost and high energy cost) deter smaller players, thereby limiting the level of fragmentation in the industry.

Majority of the smaller mills operating in this segment produces only low-value milling products, mostly maize meal, and grit. Meanwhile, production of value added products like maltodextrin and liquid glucose, and ready to eat foods like corn flakes is normally manufactured by larger mills. These larger mills, although in minority make use of better production techniques and has higher installed production capacity. These two factors along with its ability to manufacture value added products have helped larger mills differentiate themselves.

It is estimated that organized sector contributes 60 – 70% of starch production – the most prominent value-added product extracted through wet milling – with rest coming from unorganized players. There is a high concentration of maize wet milling units in the states of Gujarat, Maharashtra and Tamil Nadu. Further the concentration of mills is higher in the Northern and Western part of the country, compared to South and East.

There exist only limited companies with large enough capacity to meet the demand for large customers. Over the past few years these companies have successfully expanded their production capacity, improved quality standards, increased their distribution, and expanded their product offerings. Currently large companies which constitute organized segment offer a wide range of starch derivatives ranging from fructose / dextrose sweeteners, liquid glucose, sorbitol, as well as starch.

Increasing potential of starch derivative manufacturing sector has also attracted multinational companies to enter Indian market. Cargill, one of the largest companies operating in food products space sells their starch & sweetener products in India while France based Roquette – one of the leaders in global starch & derivatives business – have acquired a stake in Ridhi Siddhi Gluco Biols Limited, a manufacturer of starch derivatives.

Major Players

Sayaji Industries Limited (SIL)	SIL has been active in maize wet milling segment for more than 70 years. It started as a producer of native starch with a modest maize crushing capacity of one ton per day. Now the Company supplies native starch as well as modified starch products like liquid glucose, dextrose monohydrate, dextrose anhydrous and sorbitol. The company currently has the capacity
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	to manufacture 200 tonnes per day of starch, 90 tonnes per day of liquid glucose.
Cargill India	This is the subsidiary of US based Cargill, which is one of the largest food corporations in the world. Cargill India had set up a wet milling plant for maize processing in 2016 in Karnataka. The plant has a capacity to process nearly 1,200 tonnes of maize per day.
Gujarat Ambuja Exports Ltd.	Established in 1991, the company manufactures corn starch derivatives, as well as other value added agro products like soy derivatives. The Company's starch manufacturing infrastructure comprise of four units, located in Himmatnagar (Gujarat), Sitarganj (Uttarakhand), Haveri (Karnataka), and Chalisgaon (Maharashtra)
Gulshan Polyols Ltd.	Gulshan Polyols, incorporated as Gulshan Sugar & Chemicals in 1981, is active in ethanol /bio-fuel, grain processing and mineral processing. Its grain processing division is focused on manufacturing starch and associated derivatives (including liquid glucose, and malto dextrin powder)
Sahyadri Starch & Industries Private Limited	The Company was established in 1982, and currently manufactures maize starch, maltose corn syrup, modified starch, and maltodextrine. In addition, key co products manufactured include maize gluten, maize oil, corn steep liquor and maize germ.
Tirupati Starch & Chemicals Ltd.	The Company started manufacturing normal starch, pharma grade starch and dextrin in 1989, four years after its formation. In 1996 the company entered into the production of dexteros anhydrous and dexteros monohydrate. At present the company has an even wider portfolio, including corn gluten & germ, maize starch powder, and hydrol.
Sukhjit Starch & Chemicals Ltd.	Sukhjit Starch, which was set up in Punjab in 1943 has grown to become one of the largest maize starch manufacturers in India. At present the Company boasts of a corn wet milling capacity of nearly 600,000 tonnes per annum. From its four manufacturing locations, the company manufactures modified starch, liquid glucose, maltodextrin, ono-Hydrate Dextrose, Anyhydrose Dextrose, and sorbitol.

Gujara Ambuja Starch Products Limited	Gujarat Ambuja Exports Limited (GAEL), founded in 1991, is headquartered in Ahmedabad, Gujarat. It is primarily involved in manufacturing corn starch derivatives, soya derivatives, feed ingredients, cotton yarn, and edible oils. The company serves industries such as food, pharmaceuticals, and animal nutrition, focusing on sustainable growth in the agro-processing sector. GAEL is committed to international quality standards and aims to nurture its ingredient supply chain responsibly. Its mission emphasizes quality and sustainability, while its vision aspires to be a global leader providing comprehensive ingredient solutions.
Roquette India Private Limited	Roquette India Private Limited (RIPL), a subsidiary of the French-based Roquette Frères, was established in 2010 and is headquartered in Mumbai, Maharashtra. RIPL is a significant player in India's starch and starch derivatives market, with manufacturing plants in Viramgam (Gujarat), Gokak (Karnataka), and other locations. It produces a wide range of starch-based products such as liquid glucose and modified starches for industries like food, pharmaceuticals, and industrial applications. As part of Roquette's global network, RIPL leverages its parent company's expertise in plant-based ingredients to cater to the Indian market's diverse needs.
Sukhjit Starch Products Limited	Sukhjit Starch & Chemicals Ltd., founded in 1943 in Phagwara, Punjab, has grown from a small maize processing facility to a leading manufacturer in the starch and chemicals industry, with a current capacity of 600,000 tons per annum across four sites in India. The company produces a wide range of products, including native and modified starches, liquid glucose, dextrines, sorbitol, and maltodextrin, serving multiple industries. With over 75 years of technical expertise, Sukhjit is known for its quality and cost-effective production methods. The company is focusing on expanding its product portfolio with alternative raw materials such as wheat and rice, while also introducing high-value products like HFCS, biofuels, and functional starches. Sukhjit has also made significant investments in environmental sustainability, converting biodegradable waste into energy, thereby reducing its carbon footprint.

Bluecraft Agro	Bluecraft Agro Private Limited, headquartered in Ahmedabad, Gujarat, specializes in the production of specialty starch, native starch, starch derivatives, and co products from maize. Serving industries such as pharmaceuticals, food, textiles, paper, oil & gas, and animal nutrition, the company exports its products globally, meeting stringent quality and functional standards. Bluecraft Agro operates three manufacturing units in Haryana, Telangana, and Andhra Pradesh. The company's mission is to create a value-added starch ecosystem using best-in-class technology and processes. Bluecraft Agro is committed to the "Make in India" initiative and values stakeholder management, integrity, and entrepreneurship.
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Marketing Plan

The Company has identified end segments to market the products along with target domestic & export market as discussed below:

The company employs a bulk marketing strategy to sell its products to target customers such as pharmaceutical companies, consumer goods manufacturers, breweries, ready-to-eat and snack industries, as well as dairy farms and other related industries. Leveraging the promoters' extensive experience in the trading business, the company has cultivated strong relationships throughout the supply chain, including with pharma companies, local traders, stockiest, brokers, farmers, snacks, and breweries companies, facilitating effective product marketing.

Starch, the main product of the maize processing unit, finds application across various industries including food, pharmaceuticals, textiles, paper, hotels, and restaurants. Additionally, the company offers other products such as Gluten, Germ, Fibre (husk), and Corn Steep Liquor. Gluten, with its high protein content, is in high demand in the animal feed industry. Germ is processed to extract low-cholesterol edible oil, while Fibre, primarily husk, is utilized by animal feed manufacturers. Corn Steep Liquor serves as a substrate for culture media in the production of antibiotics and other microbial systems.

Key markets for processed maize products in India include Mumbai, Delhi, Ahmedabad, Kolkata, Bhopal, Hyderabad, Chandigarh, Lucknow, and Bangalore. Ahmedabad and Mumbai emerge as major trading centres for corn starch. Maize processors engage in direct marketing to consumers such as pharmaceutical industries, hotels, textiles, paper industries, etc., as well as through trading agencies. Many traders prefer procuring various maize products from a single supplier, emphasizing the importance for maize processors to offer a range of derivatives like liquid glucose and dextrose monohydrate to meet diverse industry demands and remain competitive.

Furthermore, the company taps into export opportunities, particularly to Sri Lanka, South East Asian countries, Bangladesh, and South Africa, highlighting the global potential of its starch and gluten products. Through strategic marketing efforts, the company aims to capitalize on both domestic and international markets, ensuring sustained growth and market relevance in the starch industry.

Project Cost

Estimated cost of the proposed project is mentioned in the table below:

INR million

Sr No.	Particular	Mar-25	Mar-26	Total
1	Land			0.00
2	Building	187.50	562.50	750.00
3	Plant & Machinery	570.24	1710.73	2280.97
4	Electrical Equipment & Instrumentation	80.05	240.15	320.20
	Total Hard Cost	837.79	2513.38	3351.18
5	Deposits	0.00	10.00	10.00
6	Contingency	25.13	75.40	100.53
7	Pre-Operative & Preliminary Expenses	2.50	7.50	10.00
	Total Soft Cost	27.63	92.90	120.53
8	Margin money for working Capital			0.00
	Total Project Cost	865.43	2606.28	3471.71

Details of the sub-head of the project cost are discussed in the sub-sections below.

Land & Land Development Cost

The Company has acquired 109.80 Acres leased hold land for the term of ninety-nine years commencing on the 30th day of August 2024 from MPIDC Regional Office Narmadapuram for total consideration of INR 367.62 million situated at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist. Narmadapuram, MP.

S r. N o.	Pl ot N o.	Doc. No/ Date	Land Type	Lessor	Lessee	Addresses	Lease Period	Charges * (INR)	Area		Land Boundaries			
									Sq. Mtr.	Ac res	East	West	North	South

I	A-4, A-5 & A-6	MPI69782024 AI1082050 Dtd: 30-08-2024	Industrial	MPIDC Regional Office Narmadapuram	M/s. Paramesu Biotech Limited	Mohasa-Babai, Dist. Narmadapuram, MP	99 Years	37,80,13,054.00	4,44,331.00	109.80	Pvt. Land	Road	Plot No. A-3	Plot No. A-7
Total								37,80,13,054.00	4,44,331.00	109.80				

*Charges - Land Premium + Development Charges + Stam Duty + Registration charges

Land Allotment - MP Industrial Development Corporation Ltd has allotted land parcel of area admeasuring 4,44,331 Sq. Mt. (44.433 Hect.) situated at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist. Narmadapuram, MP for amount deposited of INR 34,69,54,856.00 to M/s. Paramesu Biotech Limited. (Ref - MPIDC/RO/Narmadapuram/2024/346 Dtd. 29-08-2024)

As the land is already acquired by the Company, land cost is not considered in the project cost.

Acquisition of land is funded by term loan of INR 250.00 million from financial institutions and internal accruals of INR 117.62 million. The same is considered in financial analysis of the project.

Factory Building

Based on the estimate received from the D.S. Ramesh Varma, Chartered Engineer, Registered Valuer and Structural Engineer at S.R.V. Consultancy, Engineers, Architects and Valuers New plant of Paramesu Biotech limited for proposed 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661. (Ref. NA Dtd. 01-09-2024)

Area Details as furnished by the company is exhibited below –

Area Details			
Sr. No.	Particular	Area in Sq. Mt	Area in Acres
I	Total Site Area	4,41,466.52	109.09
2	Raw Material Godown Shed	7,895.07	1.95
3	Boiler Fuel Shed	6,601.56	1.63

4	Byproducts Packing & Godown	9,749.16	2.41
5	Starch And Byproducts Godown	9,749.16	2.41
6	Starch Packing and Godown	11,353.96	2.81
7	Starch Main Block		-
8	Ground	6,684.46	1.65
9	First	3,559.08	0.88
10	Second	321.12	0.08
11	Water Tank	100.00	0.02
12	Office Block	393.22	0.10
13	Canteen	250.00	0.06
14	Steeping Vats	676.46	0.17
15	Silo's	3,427.72	0.85
16	Workers Shed	1,960.56	0.48
17	Toilet Blocks	379.90	0.09
18	Boiler	7,057.27	1.74
19	Total Plinth Area	70,158.70	17.34
Source: PBL			

Civil Cost - Civil & Structural estimated cost Rs.893/- per Sq. Ft (Rs.9,605/- per Sq. M) to construct 8,40,159 Sq. Ft (78,082 Sq M) area at subject location is reasonable.

Sr. No.	Purpose	Qty	Dimensions in Mtrs.	Area in Sq. Mtrs.	Cost (Inc GST) (Amount in Rs.)
1	Maize Godown and Maize Unloading Shed.	1	162.45*148.6*7.00	7,895.07	6,70,00,000.00

Sr. No.	Purpose	Qty	Dimensions in Mtrs.	Area in Sq. Mtrs.	Cost (Inc GST) (Amount in Rs.)
2	Silos for maize storage (15,000 MTs each)	4	33.00 Dia.	857.37	5,20,00,000.00
3	Maize pre-cleaning shed	1	15.75*15.75*22.00	248.06	1,38,00,000.00
4	Post cleaning shed	1	15.75*15.75*22.00	248.06	1,38,00,000.00
5	Steeping vats	12	29.80*22.70*18.60	676.46	4,00,00,000.00
6	Starch main building. (G+2 floors)	1	118.10*56.60*15.00	10,564.66	10,40,00,000.00
7	Starch packing & Godown shed	1	200.60*56.60*6.00	11,353.96	8,40,00,000.00
8	Starch & byproducts Godown shed	1	200.60*48.60*6.00	9,749.16	7,00,00,000.00
9	Boiler 60 tonnes per Hour, Chimney & Fuel Handling System	1	54.75*128.90	7,057.27	3,24,00,000.00
10	Husk Shed	1	162.60*40.60	6,601.56	3,35,00,000.00
11	Raw water Sump	1	18.60*10.60*4.00	383.16	24,00,000.00
12	Effluent Treatment Plant, Zero Liquid Discharge & Sewage Treatment plant	1	56.17*133.52	7,499.81	3,50,00,000.00
13	Corn Steep Liquid Evaporator Shed	1	20.75*20.75*18.00	430.56	65,00,000.00
14	Corn Steep Liquid Cooling Towers sump	1	25.00*15.00*2.00	375.00	32,00,000.00
15	Stores and packing materials shed	1	20.00*25.00*6.00	500.00	48,00,000.00
16	Lab Building	1	25.30*10.45*4.00	264.38	40,00,000.00
17	Mechanical workshop	1	25.30*20.45	517.39	42,00,000.00
18	Time office building	1	15.30*10.45*4.00	159.88	20,00,000.00
19	Office building	1	33.84*11.62*5.00	393.22	41,00,000.00
20	Canteen building	1	25.00*10.00*6.00	250.00	30,00,000.00
21	Labour camp shed	4	50.99*7.69*4.00	392.11	60,00,000.00

Sr. No.	Purpose	Qty	Dimensions in Mtrs.	Area in Sq. Mtrs.	Cost (Inc GST) (Amount in Rs.)
22	Sulphur Dioxide Section & Sulphur Shed	1	15.23*15.30*6.00	233.01	32,50,000.00
23	Security room	1	7.23*5.23*4.00	37.81	8,00,000.00
24	Weight bride rooms	2	3.50*18.00	126.00	20,00,000.00
25	Co products packing & Godown shed	1	200.60*48.60*6.00	9,749.16	6,60,00,000.00
26	Packing materials shed	1	65.30*20.45*6.00	1,335.38	96,00,000.00
27	Washrooms	4	10.60*5.12*4.00	54.27	20,00,000.00
28	Fire water sump	1	12.40*10.40*2.00	128.96	15,00,000.00
29	Bituminous roads, drains & compound works	1	5 Kms		7,91,50,000.00
Total				78,081.73	75,00,00,000.00
Source : PBPL					

Plant & Machinery

The company has estimated Plant & Machinery cost of INR 2280.97 Cr for proposed 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661

Plant & Machinery list as given by PBL is exhibited below –

INR Million

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
1	Maize Godown	CHUTES FOR BELT CONVEYORS	25	RJ Traders	18%	0.32	7.93	1.43	9.35
2	250 TPH PRE CLEANING	DISTUBUTION CHUTE	1	RJ Traders	18%	2.50	2.50	0.45	2.95
3	PROCESS PIPING	Process Piping	1	RJ Traders	18%	58.62	58.62	10.55	69.17
4	TANKS	Tanks	1	RJ Traders	18%	65.44	65.44	11.78	77.22
5	Maize Godown	MAIZE STACKERS FOR MAIZE UNLOADING	10	BHAGWAT ENGINEERING PVT LTD	18%	0.54	5.40	0.97	6.37
6	Maize Godown	SHUTTERS	15	BHAGWAT ENGINEERING PVT LTD	18%	0.15	2.25	0.41	2.66
7	VATS	VAT DEWATERING STSINERS BIG ONE 300 NB SIZE AND 5 MTRS LENGTH	14	BHAGWAT ENGINEERING PVT LTD	18%	0.09	1.31	0.24	1.54
8	VATS	VAT DEWATERING STSINERS SMALL ONE 200 NB SIZE AND 1.2 MTRS LENGTH	14	BHAGWAT ENGINEERING PVT LTD	18%	0.02	0.33	0.06	0.39
9	GRINDING	RAV'S (25 TON'S NEED TO DISCHARGE) 500 MM SIZE	5	BHAGWAT ENGINEERING PVT LTD	18%	0.43	2.13	0.38	2.51
10	GERM DRYER	VAPOUR FILTER	2	BHAGWAT ENGINEERING PVT LTD	18%	1.63	3.27	0.59	3.86
11	GERM DRYER	GERM DRYER EXHAUEST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18%	0.75	0.75	0.14	0.89

S. N o	SECTION NAME	EQUIPMENT NAME	Q ty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
12	GERM DRYER	RAV (400 MM)	2	BHAGWAT ENGINEERING PVT LTD	18%	0.31	0.62	0.11	0.73
13	DSM SYSTEM	FIBER WASHING SUMP 1200 TPD	1	BHAGWAT ENGINEERING PVT LTD	18%	6.05	6.05	1.09	7.14
14	FIBER DRYER	VAPOR FILTER	2	BHAGWAT ENGINEERING PVT LTD	18%	2.41	4.83	0.87	5.70
15	FIBER DRYER	FIBER EXHAUST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18%	1.25	1.25	0.23	1.48
16	FIBER DRYER	RAV (300 MM) 300 MM DIA	2	BHAGWAT ENGINEERING PVT LTD	18%	0.19	0.38	0.07	0.45
17	ENRICHED DRYER	VAPOR FILTER	1	BHAGWAT ENGINEERING PVT LTD	18%	3.27	3.27	0.59	3.86
18	ENRICHED DRYER	DREYR EXHAUST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18%	1.25	1.25	0.23	1.48
19	ENRICHED DRYER	RAV (350 MM DIA)	2	BHAGWAT ENGINEERING PVT LTD	18%	0.19	0.38	0.07	0.45
20	GLUTEN DRYER	VAPOR FILTER	1	BHAGWAT ENGINEERING PVT LTD	18%	3.27	3.27	0.59	3.86
21	GLUTEN DRYER	DRYER EXHAUST BLOWER	1	BHAGWAT ENGINEERING PVT LTD	18%	1.00	1.00	0.18	1.18
22	AGITATORS	Agitators	1	BHAGWAT ENGINEERING PVT LTD	18%	23.56	23.56	4.24	27.80
23	WORK SHOP	LATHE MACHINE 15 FEET (BED) 1200 MM DIA JAWS (HEAVY DUTY)	1	BHAGWAT ENGINEERING PVT LTD	18%	3.23	3.23	0.58	3.81
24	SECURITY GATE	Security Gate	1	BHAGWAT ENGINEERING PVT LTD	18%	1.00	1.00	0.18	1.18
25	ERECTION OF MACHINEARY	Errection of Machinery	1	BHAGWAT ENGINEERING PVT LTD	18%	6.75	6.75	1.22	7.97
26	Silo Section	SILO FILING ELEVATOR 250 TPH 34 MTRS HEIGHT	1	FAMSUN STORAGE ENGINEERING CO LTD	0%	283.67	283.67	-	283.67
27	MST	1. ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 350 M3/HR AND WORKING PRESSURE 6 KG/CM2 2.MST (50 TPH PER HOUR CURSHING RATE) 1200 TPD 3.	1	Alfa Laval India Private Limited	18%	1.60	1.60	0.29	1.89
28	MST	MST (50 TPH PER HOUR CURSHING RATE) 1200 TPD	1	Alfa Laval India Private Limited	18%	27.50	27.50	4.95	32.45

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
29	PRIMARY SEPARATOR	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 220M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Alfa Laval India Private Limited	18%	1.60	1.60	0.29	1.89
30	PRIMARY SEPARATOR	PS (50 TPH PER HOUR CURSHING RATE)	1	Alfa Laval India Private Limited	18%	27.50	27.50	4.95	32.45
31	GLUTEN THICKNER	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 220M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Alfa Laval India Private Limited	18%	1.60	1.60	0.29	1.89
32	GLUTEN THICKNER	GT (50 TPH PER HOUR CURSHING RATE)	1	Alfa Laval India Private Limited	18%	27.50	27.50	4.95	32.45
33	CLARIFIER STNX 712	CLARIFIER	1	Alfa Laval India Private Limited	18%	8.50	8.50	1.53	10.03
34	STARCH DRYER	STARCH DRYERS 12 TPH	3	NEW AVM SYSTECH PVT LTD	18%	44.33	132.98	23.94	156.91
35	CSL	FALLING FILM EVAPORATOR	1	Alfa Laval India Private Limited	18%	105.00	105.00	18.90	123.90
36	SOFTNER WATER PALNT	125 M3/HR	1	KARTHIKEYA PACKAGED WATER TECHNOLOGIES	18%	5.22	5.22	0.94	6.16
37	COOLING TOWER	COOLING TOWER INLET TEMP 41 DEG	1	KARTHIKEYA PACKAGING TECHNOLOGIES	18%	6.60	6.60	1.19	7.79
38	WEIGHING SCALES	2 TON'S WEIGH SCALE	3	Essae-Teroaka Private Limited	18%	0.12	0.37	0.07	0.43
39	WEIGHING SCALES	150 KG'S WEIGH SCALE	15	Essae-Teroaka Private Limited	18%	0.04	0.60	0.11	0.71
40	WEIGHING SCALES	WAY BRIDGE CONTROL ROOM	2	MG WEIGHING SYSTEMS	18%	1.56	3.12	0.56	3.68
41	EOT	EOT AT MAIN BUILDING - 7 Tons	1	LAKSHMI INDUSTRIES	18%	2.00	2.00	0.36	2.36
42	EOT	EOT AT MST AND PS AND GT - 10 Tons	1	LAKSHMI INDUSTRIES	18%	3.10	3.10	0.56	3.66
43	BOILER AND RO PALNT	55 TPH	1	FORBESVYNKE	18%	322.50	322.50	58.05	380.55
44	BOILER AND RO PALNT	RO PALNT	1	KARTHIKEYA PACKAGING TECHNOLOGIES	18%	11.12	11.12	2.00	13.12
45	STEAM ACCESSORIES AND STEAM PIPING	STEAM ACCESSORIES & PIPING	1	FORBES MARSHALL PVT LTD	18%	79.84	79.84	14.37	94.21

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
46	PUMPS	Pumps	1	SIVANI PUMPS AND SYSTEMS PVT LTD	18%	81.18	81.18	14.61	95.79
47	ETP AND ZLD AND STP	ETP, ZLD & STP FOR 1200 TPD PLANT	1	United Envirotech Pvt Ltd	18%	168.88	168.88	30.40	199.27
48	DRINKING WATER	DRINKING WATER	1	KARTHIKEYA PACKAGING TECHNOLOGIES	18%	2.97	2.97	0.53	3.50
49	FIRE FIGHTING SYSTEM ENTIRE PALNT	FIRE FIGHTING SYSTEM EQUIPMENT	1	Pump Engineering Enterprises	18%	25.00	25.00	4.50	29.50
50	LAB	LAB EQUIPMENTS	1	Isha Scientifics	18%	11.15	11.15	2.01	13.16
51	LAB	LAB EQUIPMENTS	1	Isha Scientifics	18%	0.87	0.87	0.16	1.02
52	LAB	LAB EQUIPMENTS	1	Isha Scientifics	18%	0.87	0.87	0.16	1.02
53	LAB	LAB EQUIPMENTS	1	Isha Scientifics	18%	0.49	0.49	0.09	0.58
54	AIR COMPRESSOR	570 CFM	4	ELGI Equipments Limited	18%	3.92	15.66	2.82	18.48
55	INSULATION	LRB MATS, ALLUMINIUM COILS & LABOUR CHARGES	1	ARUNDEEP ENTERPRISES	18%	10.10	10.10	1.82	11.92
56	GRINDING	75 kw motors	4	Pump Engineering Enterprises	18%	0.24	0.96	0.17	1.13
57	FINE GRINDING SYSTEM	450 kw motors	2	Pump Engineering Enterprises	18%	1.24	2.48	0.45	2.93
58	250 TPH PRE CLEANING	PULVARIZER FOR MAIZE DUST 3 TPH	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
59	120 TPH POST CLEANING	PULVARIZER FOR MAIZE DUST 3 TPH	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
60	SO2 SYSTEM 150 M3	SO2 SECTION	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.97	11.73	-	11.73
61	GRINDING	MAIZE DE WATERING SCREEN 3 MM 1500 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.44	-	1.44
62	GRINDING	GERM CYCLONE STAGE -1 (SIZE 6X9" +4X9") 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.88	-	0.88
63	GRINDING	GERM DEWATER SCREEN 1.5 MM (1200 TPD)	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	0.72	-	0.72
64	GRINDING	GERM CYCLONE STAGE -2 (SIZE 6X9" +4X9") 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.88	-	0.88

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
65	GERM WASHING SYSTEM	1 STAGE WASHING SYSTEM (1MM SCREEN) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.44	-	1.44
66	GRINDING	GRINDER STAGE -1 (50 TPH) 36"	3	Oushangyuan Process & Equipment Intelligent Co	0%	0.33	12.15	-	12.15
67	GRINDING	GRINDER STAGE -2 (50 TPH) 36"	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.33	8.10	-	8.10
68	GERM DRYER	2 ND STAGE WASHING SYSTEM (1 MM SCREEN) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.44	-	1.44
69	GERM DRYER	GERM PRESS 700 TPD CAPACITY	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.45	10.86	-	10.86
70	GERM DRYER	GERM DRYER (50 TPH PER HOUR CURSHING RATE)	2	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	38.07	-	38.07
71	FINE GRINDING SYSTEM	DSM SCREENS AND BOXES 730 MM X1902 X50 MIC TRIPLEX & 1 ST STAGE WASHING SYSTEM 730MM X1602 X50 MIC TRIPLEX & 1 ND STAGE TO 7TH STAGE WASHING SYSTEM 730MM X1602 X75 MIC TRIPLEX & FIBER DEWATERING SCREENS 730MM X1902 X150 MIC TRIPLEX	22	Oushangyuan Process & Equipment Intelligent Co	0%	0.04	11.54	-	11.54
72	FINE GRINDING SYSTEM	FINE MILLS (IMPACT MILL) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.31	7.43	-	7.43
73	FIBER DRYER	FIBER PRESS 500 TPD	3	Oushangyuan Process & Equipment Intelligent Co	0%	0.53	19.30	-	19.30
74	FIBER DRYER	FIBER DRYER (50 TPH PER HOUR CURSHING RATE) 1200 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	38.07	-	38.07
75	ENRICHED DRYER	PEDDEL MIXTURE (50 TPH PER HOUR CURSHING RATE) 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.86	-	0.86
76	ENRICHED DRYER	FEED SCREW TO DRYER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
77	ENRICHED DRYER	Recycled Screw	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
78	ENRICHED DRYER	DRYER (50 TPH PER HOUR CURSHING RATE) 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	19.04	-	19.04
79	ENRICHED DRYER	OUTLET CONVEYOR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
80	HYDROCYCLONE	HYDRO CYCLONE (13 STAGE) 1200 TPD	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.46	17.75	-	17.75
81	GLUTEN DRYER	DRYER	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.57	19.04	-	19.04
82	STARCH DRYER	VIBRO SHIFTERS 12 TPH	10	Oushangyuan Process & Equipment Intelligent Co	0%	0.12	14.58	-	14.58
83	250 TPH PRE CLEANING	CONVEYING SYSTEM FOR MAIZE DUST 3 TPH CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
84	FIBER DRYER	FIBER DRYER OUTLET TO ENRICH FIBER DRYER SCREW 7 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
85	FITER PRESS	FLTER PRESS	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.78	9.43	-	9.43
86	STARCH DRYER	Starch automatic packing, ton bag packing and robotic palletizer system	1	Oushangyuan Process & Equipment Intelligent Co	0%	3.18	38.59	-	38.59
87	ENRICHED DRYER	Fiber packing, ton bag packing and robotic palletizer system	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.37	16.64	-	16.64
88	FUME EXTRACTION SYSTEM	TAIL GAS TREATING SYSTEM OR DE GASING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.18	2.17	-	2.17
89	SO2 SYSTEM 150 M3	PHES (INPUT TEMP : 38 DEG, OUT PUT :- 52)	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.02	0.53	-	0.53
90	VATS	STONE CATCHER 1000 TPD	2	Oushangyuan Process & Equipment Intelligent Co	0%	0.06	1.57	-	1.57
91	VATS	PHES/ PIPE HEAT EXCAHNGER (INPUT :-38 OUTPUT :- 52) 330 M3/HR	28	Oushangyuan Process & Equipment Intelligent Co	0%	0.02	7.40	-	7.40
92	MST	DE SANDING CYCLONE SYSTEM (SIZE 4 X8" + 1X6") FLOW 350 M3/HR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.08	0.93	-	0.93
93	CLARIFIER STNX 712	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 150 M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.04	0.44	-	0.44
94	HYDROCYCLONE	ROTORY STAINER (MESH SIZE 0.5 MM HOLE) FLOW 150 M3/HR AND WORKING PRESSURE 6 KG/CM2	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.04	0.44	-	0.44
95	STARCH DRYER	CENTRIFUES (6 TPH)	6	Oushangyuan Process & Equipment Intelligent Co	0%	1.17	85.59	-	85.59
96	GLUTEN DRYER	SHIFTER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.12	1.46	-	1.46

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
97	GERM DRYER	GERM CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
98	FIBER DRYER	FIBER CONVEYING SYSTEM 5 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
99	ENRICHED DRYER	ENRICHED FIBER CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
100	GLUTEN DRYER	GLUTEN CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
101	GERM DRYER	GERM DRYER FEED SCREW	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
102	FIBER DRYER	FIBER DRYER FEED SCREW	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
103	FIBER DRYER	FIBER DRYER OUTLET TO PULVARIZER SCREW 7 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
104	GLUTEN DRYER	DRYER INPUT SCREW	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
105	GLUTEN DRYER	OUTLET CONVEYOR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
106	GLUTEN DRYER	RECYCLE CONVEYOR	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
107	GLUTEN DRYER	FINE FEED CONVEYING SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.05	0.65	-	0.65
108	GLUTEN DRYER	GLUTEN AND CSL MIXTURE (CSL NEED TO MIX AND HAVE TO MAINTAIN PROTINE 60% IN FEED)	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	0.86	-	0.86
109	STARCH DRYER	CENTRIFUSE OUTLET CONVEYOR 6TPH	3	Oushangyuan Process & Equipment Intelligent Co	0%	0.07	2.57	-	2.57
110	FIBER DRYER	FIBER PULVARIZER 5 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
111	ENRICHED DRYER	ENRICHED FIBER PULVARIZER 10 TON'S PER HOUR CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
112	GLUTEN DRYER	PULVRIZER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.11	1.36	-	1.36
113	GERM DRYER	GERM PACKING AND ROBOTIC PALLETIZER SYSTEM	1	Oushangyuan Process & Equipment Intelligent Co	0%	1.09	13.29	-	13.29

S. No	SECTION NAME	EQUIPMENT NAME	Qty	SUPPLIER NAME	GS T %	EACH VALUE	BASIC VALUE	GS T	TOTAL COST
114	GLUTEN DRYER	Protein packing and ton bag packing	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.33	4.00	-	4.00
115	GLUTEN DRYER	BAG FILTER	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.02	0.20	-	0.20
116	120 TPH POST CLEANING	CONVEYING SYSTEM FOR MAIZE DUST 3 TPH CAPACITY	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.23	2.81	-	2.81
117	Plant Drawings	Complete plant drawings	1	Oushangyuan Process & Equipment Intelligent Co	0%	0.20	16.27	-	16.27
	Total						2,047.76	233.21	2,280.97

P&M Quotations - The Company has provided INR 2280.97 Million quotations for the project under consideration. It seems the P&M cost is based on budgetary quotations or estimated cost. The Company to arrange firm quotations and review the contract before placing the final orders on respective suppliers.

Sr. No	Section Name	Equipment Name	Qty	Supplier Name	As per Quote	
					Ref: Quotation No. / Date	Total Amount in INR incl. Tax.
1	Maize Godown	Chutes For Belt Conveyors	25	Rj Traders	NA Dtd:15-10-2024	9,351,500.00
2	250 Tph Pre Cleaning	Distubution Chute	1			2,950,000.00
3	Process Piping	Process Piping	1			69,174,152.34
4	Tanks	Tanks	1			77,221,973.00
5	Maize Godown	Maize Stackers For Maize Unloading	10	Bhagwat Engineering Pvt Ltd	NA Dtd: 15-10-2024	6,372,000.00
6	Maize Godown	Shutters	15			2,655,000.00
7	Vats	Vat Dewatering Stsiners Big One 300 Nb Size And 5 Mtrs Length	14			1,544,620.00

8	Vats	Vat Dewatering Stainers Small One 200 Nb Size And 1.2 Mtrs Length	14			392,350.00
9	Grinding	Rav'S (25 Ton'S Need To Discharge) 500 Mm Size	5			2,507,500.00
10	Germ Dryer	Vapour Filter	2			3,858,246.00
11	Germ Dryer	Germ Dryer Exhaust Blower	1			885,000.00
12	Germ Dryer	Rav (400 Mm)	2			731,600.00
13	Dsm System	Fiber Washing Sump 1200 Tpd	1			7,139,000.00
14	Fiber Dryer	Vapor Filter	2			5,696,450.00
15	Fiber Dryer	Fiber Exhaust Blower	1			1,475,000.00
16	Fiber Dryer	Rav (300 Mm) 300 Mm Dia	2			448,400.00
17	Enriched Dryer	Vapor Filter	1			3,858,240.10
18	Enriched Dryer	Dreyr Exhaust Blower	1			1,475,000.00
19	Enriched Dryer	Rav (350 Mm Dia)	2			448,400.00
20	Gluten Dryer	Vapor Filter	1			3,858,240.10
21	Gluten Dryer	Dryer Exhaust Blower	1			1,180,000.00
22	Agitators	Agitators	1			27,803,160.00
23	Work Shop	Lathe Machine 15 Feet (Bed) 1200 Mm Dia Jaws (Heavy Duty)	1			3,805,500.00
24	Security Gate	Security Gate	1			1,180,000.00
25	Erection Of Machineary	Errection Of Machinery	1			7,965,000.00
26	Silo Section	Silo Filing Elevator 250 Tph 34 Mtrs Height	1	Famsun Storage Engineering Co Ltd	001 Dtd: 14-10-2024	283,669,022.25
27	Mst	1.Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 350 M3/Hr And Working Pressure 6 Kg/Cm2 2.Mst (50 Tph Per Hour Curshing Rate) 1200 Tpd 3.	1	Alfa Laval India Private Limited	2024/AL/HSS/PB/CH38_R2 Dtd: 16-10-2024	113,044,000.00

28	Mst	Mst (50 Tph Per Hour Curshing Rate) 1200 Tpd	1			
29	Primary Separator	Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 220M3/Hr And Working Pressure 6 Kg/Cm2	1			
30	Primary Separator	Ps (50 Tph Per Hour Curshing Rate)	1			
31	Gluten Thickner	Rotory Stainer (Mesh Size 0.5 Mm Hole) Flow 220M3/Hr And Working Pressure 6 Kg/Cm2	1			
32	Gluten Thickner	Gt (50 Tph Per Hour Curshing Rate)	1			
33	Clarifier Stnx 712	Clarifier	1			
34	Starch Dryer	Starch Dryers 12 Tph	3	New Avm Systech Pvt Ltd	AVM/O/PDS- 21008/RI Dtd:11-10-2024	156,910,500.00
35	Csl	Falling Film Evaporator	1	Alfa Laval India Private Limited	EV202410054 RI Dtd: 13-09-2024	123,900,000.00
36	Softner Water Palnt	125 M3/Hr	1	Karthikeya Packaged Water Technologies	KPT/KKD/PBPL/0278/2024-25 Dtd: 14-10-2024	6,159,600.00
37	Cooling Tower	Cooling Tower Inlet Temp 41 Deg	1	Karthikeya Packaging Technologies	KPT/KKD/PBPL/0281/2024-25 Dtd: 10-10-2024	7,788,000.00
38	Weighing Scales	2 Ton'S Weigh Scale	3	Essae-Teroaka Private Limited	ETPL/RJY/APR/24-25 Dtd: 13-10-2024	433,281.84
39	Weighing Scales	150 Kg'S Weigh Scale	15	Essae-Teroaka Private Limited		709,398.30

40	Weighing Scales	Way Bridge Control Room	2	Mg Weighing Systems	NA Dtd: 16-10-2024	3,681,600.00
41	Eot	Eot At Main Building - 7 Tons	1	Lakshmi Industries	NA Dtd: 15-10-2024	2,360,000.00
42	Eot	Eot At Mst And Ps And Gt - 10 Tons	1	Lakshmi Industries	NA Dtd: 15-10-2024	3,658,000.00
43	Boiler And Ro Palnt	55 Tph	1	Forbesvyns ke	FV2411/EP500/PI4/PBPL/R5-A Dtd: 10-10-2024	380,550,000.00
44	Boiler And Ro Palnt	Ro Palnt	1	Karthikeya Packaging Technologies	KPT/KKD/PBPL/0280/2024-25 Dtd: 14-10-2024	13,115,700.00
45	Steam Accessories And Steam Piping	Steam Accessories & Piping	1	Forbes Marshall Pvt Ltd	2425/FMPL/VDR/90/ VBPL /90/01082024 Dtd:01-08-2024	94,213,797.18
46	Pumps	Pumps	1	Sivani Pumps And Systems Pvt Ltd	SPH2BB802-01 Dtd: 10-10-2024	95,790,817.62
47	Etp And Zld And Stp	Etp, Zld & Stp For 1200 Tpd Plant	1	United Envirotech Pvt Ltd	NA Dtd:13-10-2024	199,272,500.00
48	Drinking Water	Drinking Water	1	Karthikeya Packaging Technologies	KPT/KKD/PBPL/0278/2024-25 Dtd: 14-10-2024	3,504,600.00
49	Fire Fighting System Entire Palnt	Fire Fighting System Equipment	1	Pump Engineering Enterprises	PEE:VJA: GRK:G79/24-25 Dtd: 15-10-2024	29,500,000.00
50	Lab	Lab Equipments	1	lisha Scientifics	093/LISHA/LABS/2024 Dtd: 15-10-2024	13,162,693.50
51	Lab	Lab Equipments	1		094/LISHA/LABS/2024-25 Dtd: 15-10-2024	1,022,706.00

52	Lab	Lab Equipments	1		095/LISHA/LABS/2024-25 Dtd: 15-10-2024	1,022,706.00
53	Lab	Lab Equipments	1		093/LISHA/LABS/2024 Dtd: 15-10-2024	583,770.78
54	Air Compressor	570 Cfm	4	Elgi Equipments Limited	CPA/EG/24-25/95 Dtd: 13-10-2024	18,483,520.00
55	Insulation	Lrb Mats, Alluminium Coils & Labour Charges	1	Arundee Enterprises	115 Dtd: 15-10-2024	11,917,764.00
56	Grinding	75 Kw Motors	4	Pump Engineering Enterprises	PEE:VJA: GRK:G91/24-25 Dtd: 14-10-2024	1,132,800.00
57	Fine Grinding System	450 Kw Motors	2	Pump Engineering Enterprises	PEE:VJA: GRK:G99/24-25 Dtd: 14-10-2024	2,926,400.00
58	250 Tph Pre Cleaning	Pulvarizer For Maize Dust 3 Tph	1	Oushangyuan Process & Equipment Intelligent Co	YUANQT2023678 Dtd: 12-10-2024	452,209,975.20
59	120 Tph Post Cleaning	Pulvarizer For Maize Dust 3 Tph	1			
60	So2 System 150 M3	So2 Section	1			
61	Grinding	Maize De Watering Screen 3 Mm 1500 Tpd	2			
62	Grinding	Germ Cyclone Stage -1 (Size 6X9" +4X9") 1200 Tpd	1			
63	Grinding	Germ Dewater Screen 1.5 Mm (1200 Tpd)	1			
64	Grinding	Germ Cyclone Stage -2 (Size 6X9" +4X9") 1200 Tpd	1			
65	Germ Washing System	1 Stage Washing System (1Mm Screen) 1200 Tpd	2			
66	Grinding	Grinder Stage -1 (50 Tph) 36"	3			
67	Grinding	Grinder Stage -2 (50 Tph) 36"	2			
68	Germ Dryer	2 Nd Stage Washing System (1 Mm Screen) 1200 Tpd	2			
69	Germ Dryer	Germ Press 700 Tpd Capacity	2			
70	Germ Dryer	Germ Dryer (50 Tph Per Hour Curshing Rate)	2			

71	Fine Grinding System	Dsm Screens And Boxes 730 Mm X1902 X50 Mic Triplex & 1 St Stage Washing System 730Mm X1602 X50 Mic Triplex & 1 Nd Stage To 7Th Stage Washing System 730Mm X1602 X75 Mic Triplex & Fiber Dewatering Screens 730Mm X1902 X150 Mic Triplex	22		
72	Fine Grinding System	Fine Mills (Impact Mill) 1200 Tpd	2		
73	Fiber Dryer	Fiber Press 500 Tpd	3		
74	Fiber Dryer	Fiber Dryer (50 Tph Per Hour Curshing Rate) 1200 Tpd	2		
75	Enriched Dryer	Peddel Mixture (50 Tph Per Hour Curshing Rate) 1200 Tpd	1		
76	Enriched Dryer	Feed Screw To Dryer	1		
77	Enriched Dryer	Recycled Screw	1		
78	Enriched Dryer	Dryer (50 Tph Per Hour Curshing Rate) 1200 Tpd	1		
79	Enriched Dryer	Outlet Conveyor	1		
80	Hydrocyclone	Hydro Cyclone (13 Stage) 1200 Tpd	1		
81	Gluten Dryer	Dryer	1		
82	Starch Dryer	Vibro Shifters 12 Tph	10		
83	250 Tph Pre Cleaning	Conveying System For Maize Dust 3 Tph Capacity	1		
84	Fiber Dryer	Fiber Dryer Outlet To Enrich Fiber Dryer Screw 7 Ton'S Per Hour Capacity	1		
85	Fiter Press	Flter Press	1		
86	Starch Dryer	Starch Automatic Packing, Ton Bag Packing And Robotic Palletizer System	1		

87	Enriched Dryer	Fiber Packing, Ton Bag Packing And Robotic Palletizer System	1		
88	Fume Extraction System	Tail Gas Treating System Or De Gasing System	1		
89	So2 System 150 M3	Phes (Input Temp : 38 Deg, Out Put :- 52)	2		
90	Vats	Stone Catcher 1000 Tpd	2		
91	Vats	Phes/ Pipe Heat Exchanger (Input :-38 Output :- 52) 330 M3/Hr	28		
92	Mst	De Sanding Cyclone System (Size 4 X8" + 1X6") Flow 350 M3/Hr	1		
93	Clarifier Stnx 712	Rotary Stainer (Mesh Size 0.5 Mm Hole) Flow 150 M3/Hr And Working Pressure 6 Kg/Cm2	1		
94	Hydrocyclone	Rotary Stainer (Mesh Size 0.5 Mm Hole) Flow 150 M3/Hr And Working Pressure 6 Kg/Cm2	1		
95	Starch Dryer	Centrifuges (6 Tph)	6		
96	Gluten Dryer	Shifter	1		
97	Germ Dryer	Germ Conveying System	1		
98	Fiber Dryer	Fiber Conveying System 5 Ton'S Per Hour Capacity	1		
99	Enriched Dryer	Enriched Fiber Conveying System	1		
100	Gluten Dryer	Gluten Conveying System	1		
101	Germ Dryer	Germ Dryer Feed Screw	1		
102	Fiber Dryer	Fiber Dryer Feed Screw	1		
103	Fiber Dryer	Fiber Dryer Outlet To Pulvarizer Screw 7 Ton'S Per Hour Capacity	1		
104	Gluten Dryer	Dryer Input Screw	1		
105	Gluten Dryer	Outlet Conveyor	1		

106	Gluten Dryer	Recycle Conveyor	1		
107	Gluten Dryer	Fine Feed Conveying System	1		
108	Gluten Dryer	Gluten And Csl Mixture (Csl Need To Mix And Have To Maintain Protine 60% In Feed)	1		
109	Starch Dryer	Centrifuse Outlet Conveyor 6Tph	3		
110	Fiber Dryer	Fiber Pulvarizer 5 Ton'S Per Hour Capacity	1		
111	Enriched Dryer	Enriched Fiber Pulvarizer 10 Ton'S Per Hour Capacity	1		
112	Gluten Dryer	Pulvrizer	1		
113	Germ Dryer	Germ Packing And Robotic Palletizer System	1		
114	Gluten Dryer	Protein Packing And Ton Bag Packing	1		
115	Gluten Dryer	Bag Filter	1		
116	120 Tph Post Cleaning	Conveying System For Maize Dust 3 Tph Capacity	1		
117	Plant Drawings	Complete Plant Drawings	1	YUANQT2023678 Dtd: 14-06-2024	16,273,413.00
Total					2,280,972,897

Electrical Equipment & Instrumentation

The company has estimated Electrical equipment & instrumentation cost of INR 32.02 Cr for proposed 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor.

INR Million

S. No	Equipment Name	Qty	Supplier Name	GS T %	Basic Value	GST Amount	Total Cost
1	DCS, PANELS	1	SIGMA AUTOMATION & INSTRUMENTS	18%	89.00	16.02	105.02
2	VFD PANELS	1	SIGMA AUTOMATION & INSTRUMENTS	18%	3.84	0.69	4.53
3	HT SUBSTATION WORK (TRANSFORMER, DG , HT VCB)	1	VL ENGINEERS	18%	37.59	6.77	44.36
4	CABLE & TERMINATION	1	VL ENGINEERS	18%	37.03	6.66	43.69
5	CABLE TRAY & SUPPORT	1	VL ENGINEERS	18%	5.97	1.07	7.04
6	EARTHING & LIGHTNING PROTECTION	1	VL ENGINEERS	18%	2.73	0.49	3.22
7	INDOOR & OUTDOOR LIGHTING	1	VL ENGINEERS	18%	6.20	1.12	7.32
8	LT PANELS	1	VL ENGINEERS	18%	55.58	10.00	65.59
9	SANDWITCH BBT	1	VL ENGINEERS	18%	10.17	1.83	12.00
10	HYBRID RTPFC PANELS	1	VL ENGINEERS	18%	4.51	0.81	5.32
11	INTERNAL WIRING FOR LIGHTING	1	VL ENGINEERS	18%	3.00	0.54	3.54
12	DG SETS	1	VL ENGINEERS	18%	15.75	2.83	18.58
	TOTAL	12	-		271.36	48.84	320.20

Pre-Operative & Preliminary Expenses

The company will incur manpower cost during implementation of the project along with consultant payment, statutory approval fees, administrative expenses of travel & visits, and trial run expenses. POP expenses are estimated at INR 10.00 Million which includes various deposits to government department & financial institutions to obtain necessary utilities and other facilities.

Contingency

The Project is in initial stage and implementation is expected to be completed by April, 2026. The company has obtained budgetary quotation from suppliers and in negotiation with suppliers. Considering the same, contingency of INR 100.53 million is included in project cost. Contingency is worked out 3 % on estimated building, plant & machinery and electrical equipment & instrumentation cost.

Interest during construction

Interest on term loan of INR 250 million availed to procure land before commencement of operation of the project would be paid from existing operation of the Company and therefore, the same is not considered in the project cost.

Margin money for working capital

The Company has proposed not to take any working capital loan for the proposed project and the requirement will be met through the internal accruals of the project.

Project Cost rationale

The Company has already acquired land.

The Company has shared budgetary estimates building & civil work which is yet to be finalized. The company has worked out BOQ to arrive cost of buildings.

The company has estimated Plant & Machinery cost of INR 2280.97 million & electrical cost of INR 320.20 million for proposed 1200 TPD Maize Processing Plant and obtained quotations from reputed suppliers. In addition to this, 3 % contingency cost is considered on building & civil work, plant & machinery and electrical equipment & instrumentation cost in the project cost.

Considering proposed installed capacity, selected suppliers, and project configuration, D&B India observer that estimated cost is reasonable and within industry range based on experience of working on similar kind of project in past.

Means of Finance

The project is proposed to be funded by promoters' contribution in the form of capital & internal accruals.

The proposed means of finance is detailed in the following exhibit:

INR Million

Sr. No.	Particular	Mar-25	Mar-26	Total
1	Equity	697.13	2602.87	3300.00
2	Internal Accrual	168.30	3.41	171.71
3	Term Loan	0.00	0.00	0.00
	Total	865.43	2606.28	3471.71

Promoters' Contribution

The company has proposed to raise fund through initial public offer from the investor which is major source of funding for the proposed project i.e. INR 3300 million. Besides this, the Company has proposed to bring internal accruals of INR 171.71 million towards project funding as promoter's contributions.

Besides this, the Company has also infuse INR 117.62 million for acquisition of land from internal accruals. However, as land cost is not considered in the project cost, so equity contribution towards the same is not included in means of finance.

As per projected financial statements, the needs to infuse fund amounting to 1000.00 million in initial years of operation of the proposed project to maintain positive cashflow. The same would be infused from internal accruals.

Term Loan

The Company has availed term loan of INR 250 million for procurement of land and its repayment is already started. However, as land cost is not considered in the project cost, term loan availed for procurement of land is also not included in means of finance.

The broad terms of the existing term loan are as given below:

Nature of borrowing	
Loan Amount	INR 250 million

Interest Rate Proposed	11.00 %
Commercial Operation Date	April 2026
Moratorium	No Moratorium
Repayment Starts	October, 2024
Repayment Period	36 months.

Brief repayment schedule is mentioned in the table below:

INR million

Particular	Mar-25	Mar-26	Mar-27	Mar-28
Opening Balance	0.00	208.33	125.00	41.67
Addition	250.00	0.00	0.00	0.00
Repayment	41.67	83.33	83.33	41.67
Closing Balance	208.33	125.00	41.67	0.00
Interest	16.04	18.33	9.17	1.15
Repayment %	17%	33%	33%	17%
IDC	16.04	18.33	0.00	0.00
Interest charged to P&L	0.00	0.00	9.17	1.15

The company has obtained term loan from NBFC for purchase of lease hold land and proposed to repay partial loan during the implementation of the project which indicates that largely the project would be funded through fund raised through IPO and internal accruals.

Economic Viability

Revenues

Proposed product mix and estimated output is mentioned in the table below:

PRODUCT	Standard Yields	Std Production @ 100 % Capacity	% Of production
STARCH	67.00%	804	68.37%
Total Starches	67.00%	804	68.37%
GERMS	6.50%	78	6.63%
FIBRE	10.00%	120	10.20%
GLUTEN	4.50%	54	4.59%
CSL	10.00%	120	10.20%
Total Co products	31.00%	372	31.63%
TOTAL	98.00%	1176	100%

Estimated capacity utilisation, production and stock of WIP (Work in progress) & FG (Finished Goods) along with estimated revenue is mentioned in the table below:

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Starch	MT/Day	804	804	804	804	804	804
GERMS	MT/Day	78	78	78	78	78	78
FIBRE	MT/Day	120	120	120	120	120	120
GLUTEN	MT/Day	54	54	54	54	54	54
CSL	MT/Day	120	120	120	120	120	120
Total production per day		1176	1176	1176	1176	1176	1176
Operational Months	months	12	12	12	12	12	12
Total working days	in an year	330	330	330	330	330	330
Total	MT/Annum	388,080	388,080	388,080	388,080	388,080	388,080

Capacity Utilisation

%

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
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Starch	%	70%	80%	85%	90%	95%	95%
GERMS		70%	80%	85%	90%	95%	95%
FIBRE		70%	80%	85%	90%	95%	95%
GLUTEN		70%	80%	85%	90%	95%	95%
CSL		70%	80%	85%	90%	95%	95%
Effective utilisation		70.00%	80.00%	85.00%	90.00%	95.00%	95.00%

Production

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Starch	MTPA	185,724	212,256	225,522	238,788	252,054	252,054
GERMS	MTPA	18,018	20,592	21,879	23,166	24,453	24,453
FIBRE	MTPA	27,720	31,680	33,660	35,640	37,620	37,620
GLUTEN	MTPA	12,474	14,256	15,147	16,038	16,929	16,929
CSL	MTPA	27,720	31,680	33,660	35,640	37,620	37,620
Total Production	MTPA	271,656	310,464	329,868	349,272	368,676	368,676

WIP

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Starch	MTPA	1,548	1,769	1,879	1,990	2,100	2,100
GERMS	MTPA	150	172	182	193	204	204
FIBRE	MTPA	231	264	281	297	314	314
GLUTEN	MTPA	104	119	126	134	141	141
CSL	MTPA	231	264	281	297	314	314
Total WIP	MTPA	2,264	2,587	2,749	2,911	3,072	3,072

Finished Goods

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
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Starch	MTPA	2,302	2,650	2,818	2,983	3,149	3,151
GERMS	MTPA	223	257	273	289	306	306
FIBRE	MTPA	344	396	421	445	470	470
GLUTEN	MTPA	155	178	189	200	212	212
CSL	MTPA	344	396	421	445	470	470
Total FG	MTPA	3,367	3,877	4,121	4,364	4,606	4,608

**Quantity
Available for Sale**

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Starch	MTPA	181,874	211,687	225,244	238,512	251,778	252,053
GERMS	MTPA	17,645	20,537	21,852	23,139	24,426	24,453
FIBRE	MTPA	27,145	31,595	33,619	35,599	37,579	37,620
GLUTEN	MTPA	12,215	14,218	15,128	16,019	16,910	16,929
CSL	MTPA	27,145	31,595	33,619	35,599	37,579	37,620
Total Quantity for sale	MTPA	266,025	309,631	329,462	348,868	368,272	368,674

Price

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Starch	INR / MT	35,250	35,250	35,250	35,250	35,250	35,250
GERMS	INR / MT	50,000	50,000	50,000	50,000	50,000	50,000
FIBRE	INR / MT	17,500	17,500	17,500	17,500	17,500	17,500
GLUTEN	INR / MT	48,000	48,000	48,000	48,000	48,000	48,000
CSL	INR / MT	7,500	7,500	7,500	7,500	7,500	7,500

Revenue

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Starch	INR Million	6,411.06	7,461.96	7,939.86	8,407.53	8,875.16	8,884.85
GERMS	INR Million	882.23	1,026.84	1,092.60	1,156.96	1,221.31	1,222.64
FIBRE	INR Million	475.04	552.91	588.32	622.98	657.63	658.35
GLUTEN	INR Million	586.34	682.45	726.16	768.93	811.70	812.59
CSL	INR Million	203.59	236.96	252.14	266.99	281.84	282.15
Total		8,558.26	9,961.12	10,599.09	11,223.40	11,847.64	11,860.58

Prices of finished products have been benchmarked with existing prices in the market and with raw material to sales ratio. Estimated prices are in range of the industry standard.

The company is already operating maize processing unit of 800 TPD at Rajahmundry which includes value added products also in the product portfolio. The company has informed that it has already achieved more than 90 to 95 % capacity utilisation in the existing unit, considering the same and establish market for the company, capacity utilisation is estimated at 70 % in first year of operation.

Operating Costs

Various operating cost is mentioned in the table below with consumption norms.

Raw material cost

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Maize Requirement	MT	277,200	316,800	336,600	356,400	376,200	376,200
Maize	INR	23,000	23,000	23,000	23,000	23,000	23,000

Material Cost

Particular	Description	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Maize	INR Million	6,375.60	7,286.40	7,741.80	8,197.20	8,652.60	8,652.60
Total		6,375.60	7,286.40	7,741.80	8,197.20	8,652.60	8,652.60

Raw material cost of Maize is considered based on MSP and market prices. transportation and handling cost is added in raw material cost of Maize

Power Cost

Particular		Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Connected Load	KW	12000	12000	12000	12000	12000	12000
Power Factor	Ratio	0.99	0.99	0.99	0.99	0.99	0.99
Load Factor	%	0.55	0.55	0.55	0.55	0.55	0.55
Power Consumption per Annum	Units	54885600	54885600	54885600	54885600	54885600	54885600
Power Tariff (Subsidy Rs l)	INR	7.5	7.5	7.5	7.5	7.5	7.5
Total Power Cost	INR Million	411.64	411.64	411.64	411.64	411.64	411.64

Connected load is considered as per detailed power load provided by the Company which is included in annexure.

Steam Cost

S. No.	Units	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Maize Crushing Capacity	Tons / Day	1200.00	1200.00	1200.00	1200.00	1200.00	1200.00
No of Days	Days	330	330	330	330	330	330
Capacity Utilisation	%	70.00%	80.00%	85.00%	90.00%	95.00%	95.00%
Annual Production		277,200	316,800	336,600	356,400	376,200	376,200
Husk - INR / Ton	5,000.00						
Steam Consumption - SO2 Section	Kgs / Hr	150	150	150	150	150	150
Steam Consumption – Vats	Kgs / Hr	2500	2500	2500	2500	2500	2500
Steam Consumption - Germ	Kgs / Hr	4400	4400	4400	4400	4400	4400
Steam Consumption – Fiber	Kgs / Hr	6500	6500	6500	6500	6500	6500
Steam Consumption - Starch	Kgs / Hr	17000	17000	17000	17000	17000	17000
Steam Consumption - Gluten	Kgs / Hr	3120	3120	3120	3120	3120	3120
Steam Consumption - Enriched Fiber	Kgs / Hr	8400	8400	8400	8400	8400	8400
Steam Consumption - Deaerator	Kgs / Hr	1000	1000	1000	1000	1000	1000
Steam Consumption - CSL Evaporator	Kgs / Hr	5900	5900	5900	5900	5900	5900
Steam Consumption - Steam line losses	Kgs / Hr	500	500	500	500	500	500
Total Steam Consumption per Annum	Tons	274,262	313,442	333,032	352,622	372,212	372,212
No of Tonns of husk Required to produce one ton of Steam		0.24	0.24	0.24	0.24	0.24	0.24
No of Tonns of husk Required P.A		65,300	74,629	79,293	83,958	88,622	88,622
Steam Cost paer annum	INR Million	326.50	373.15	396.47	419.79	443.11	443.11

Cost per ton	INR/MT	11,778.57	11,778.57	11,778.57	11,778.57	11,778.57	11,778.57
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Employee Cost

Particular		Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Direct Headcount							
Manager	20	20	20	20	20	20	20
Head of department	10	10	10	10	10	10	10
Supervisor/Technical	25	25	25	25	25	25	25
Packing loading and unloading labour							
Skilled workers	200	200	200	200	200	200	200
Semi-Skilled	50	50	50	50	50	50	50
Unskilled workers	20	20	20	20	20	20	20
Total	325	325	325	325	325	325	325
Indirect Headcount							
Administration	25	25	25	25	25	25	25
Security staff	10	10	10	10	10	10	10
Total	35	35	35	35	35	35	35

Salary

INR/Month

Particular	3	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Direct Headcount							
Manager	50,000	50,000	52,500	55,125	57,881	60,775	63,814
Head of department	80,000	80,000	84,000	88,200	92,610	97,241	102,103
Supervisor/Technical	25,000	25,000	26,250	27,563	28,941	30,388	31,907
Packing loading and unloading labour							
Skilled workers	20,000	20,000	21,000	22,050	23,153	24,310	25,526
Semi-Skilled	18,000	18,000	18,900	19,845	20,837	21,879	22,973
Unskilled workers	15,000	15,000	15,750	16,538	17,364	18,233	19,144
Increment		0.00%	5.00%	5.00%	5.00%	5.00%	5.00%

Indirect Headcount							
Administration	20,000	20,000	21,000	22,050	23,153	24,310	25,526
Security staff	20,000	20,000	21,000	22,050	23,153	24,310	25,526

Salary Cost

INR Million/Annum

Particular		Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Direct Headcount							
Manager		12.00	12.60	13.23	13.89	14.59	15.32
Head of department		9.60	10.08	10.58	11.11	11.67	12.25
Supervisor/Technical		7.50	7.88	8.27	8.68	9.12	9.57
Packing loading and unloading labour		-	-	-	-	-	-
Skilled workers		48.00	50.40	52.92	55.57	58.34	61.26
Semi-Skilled		10.80	11.34	11.91	12.50	13.13	13.78
Unskilled workers		3.60	3.78	3.97	4.17	4.38	4.59
Total		91.50	96.08	100.88	105.92	111.22	116.78
Indirect Headcount							
Administration		6.00	6.30	6.62	6.95	7.29	7.66
Security staff		2.40	2.52	2.65	2.78	2.92	3.06
Total		8.40	8.82	9.26	9.72	10.21	10.72

Repairs & Maintenance Cost

Particular		Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Norms	% of GFA	1.00%					
Repairs & Maintenance Cost	INR Million	33.94	35.64	37.42	39.30	41.26	43.32
Increment (in each following year)	%		5.00%	5.00%	5.00%	5.00%	5.00%

- Repairs & Maintenance cost is estimated 1 % of hard cost in first full year of operation i.e. till FY 27 and thereafter 5 % of increment is considered in each following year compare to previous year

Other Expenses

Particular		Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32
Packing material	INR Million / Annum	97.02	110.88	117.81	124.74	131.67	131.67

Chemicals	INR Million / Annum	110.88	126.72	134.64	142.56	150.48	150.48
Stores	INR Million / Annum	110.88	126.72	134.64	142.56	150.48	150.48
Manufacturing expenses	INR Million / Annum	138.60	158.40	168.30	178.20	188.10	188.10
General Administration	INR Million / Annum	30.00	31.50	33.08	34.73	36.47	38.29
Selling & Distribution Expense	INR Million / Annum	171.17	199.22	211.98	224.47	236.95	237.21

Depreciation

- Depreciation rates considered for projection purpose are mentioned below:

Asset	SLM (Company Act)	WDV Method (IT)
Land	0.00%	0.00%
Factory & Building	3.34%	10.00%
Plant & Machinery	5.28%	15.00%
Electrical equipment & instrumentation	5.28%	10.00%

Working Capital

Working capital norms considered to estimate working capital requirement are mentioned in the table below:

Particular	Holding Norms (Months)	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Current Assets									
Raw Material	2.00	1,062.60	1,214.40	1,290.30	1,366.20	1,442.10	1,442.10	1,442.10	1,442.10
Stores & Spares	1.00	18.48	21.12	22.44	23.76	25.08	25.08	25.08	25.08
Work In Progress	0.10	64.14	72.72	77.04	81.36	85.68	85.74	85.81	85.88
Finished Goods	0.15	95.41	108.97	115.50	121.98	128.46	128.61	128.71	128.82
Debtors	1.00	713.19	830.09	883.26	935.28	987.30	988.38	988.39	988.39
Total Current Assets		1,953.83	2,247.30	2,388.53	2,528.58	2,668.62	2,669.92	2,670.09	2,670.26
Current Liabilities									
Creditors	1.00	531.30	607.20	645.15	683.10	721.05	721.05	721.05	721.05

Particular	Holding Norms (Months)	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Total Current Liabilities		531.30	607.20	645.15	683.10	721.05	721.05	721.05	721.05
Working Capital Gap		1,422.53	1,640.10	1,743.38	1,845.48	1,947.57	1,948.87	1,949.04	1,949.21
Proposed Bank Finance		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Margin money		1,422.53	1,640.10	1,743.38	1,845.48	1,947.57	1,948.87	1,949.04	1,949.21

Tax rates

Tax rates considered for financial projection purpose are mentioned in the table below:

Tax Assumptions	Tax Rate
Corporate Tax Base Rate	22.00%
Income Tax Surcharge	10.00%
Education Cess	4.00%
Total	25.17%

D&B India has validated various consumption norms and unit cost of raw material, utilities etc. from market and similar kind of project executed in the past. Overall cost structure is studied in detailed and EBIDTA is benchmarked with current performance of the Company, similar kind of players in the industry and project studies executed by D&B India recently. Estimated consumption norms and prices are in line with market trend and with in industry standards.

Projected Financial Statements

Projected financial statements are attached in the report as annexure.

Financial hilights of the project is mentioned in the table below:

Particulars	Unit	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Net Revenue	INR Mn	-	-	8,558.26	9,961.12	10,599.09	11,223.40	11,847.64	11,860.58	11,860.65	11,860.65
% Growth	%				16%	6%	6%	6%	0%	0%	0%
EBITDA	INR Mn	-	-	811.67	1,018.09	1,112.01	1,203.37	1,294.26	1,286.39	1,275.95	1,264.98
EBITDA Margin	%			9.48%	10.22%	10.49%	10.72%	10.92%	10.85%	10.76%	10.67%
Net Profit	INR Mn	-	-	557.97	702.87	760.69	817.63	875.86	861.59	846.59	832.21
Net Profit Margin	%			6.52%	7.06%	7.18%	7.29%	7.39%	7.26%	7.14%	7.02%
Contribution	INR Mn		-	1,055.18	1,293.27	1,403.75	1,511.58	1,619.14	1,615.93	1,610.11	1,603.99
Contribution Margin	%			12.33%	12.98%	13.24%	13.47%	13.67%	13.62%	13.58%	13.52%
Break-Even Sales	INR Mn			3,288.80	3,305.36	3,356.62	3,423.10	3,495.44	3,540.39	3,587.22	3,636.75
(a) Share capital	INR Mn	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
(b) Reserves and Surplus	INR Mn	-	-	557.97	1,260.84	2,021.53	2,839.16	3,715.03	4,576.62	5,423.20	6,255.41
(c) Internal Cash Accruals		327.59	581.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00
Total Net Worth (TNW)	INR Mn	3,300.00	3,300.00	3,857.97	4,560.84	5,321.53	6,139.16	7,015.03	7,876.62	8,723.20	9,555.41
Secured Loan	INR Mn	208.33	125.00	41.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt-Equity Ratio	Ratio	0.06	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Outside Liabilities (TOL)	INR Mn	291.67	125.00	572.97	607.20	645.15	683.10	721.05	721.05	721.05	721.05
TOL/ TNW	Ratio	0.09	0.04	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08
Cash / Bank Balance	INR Mn	2,686.21	166.67	121.61	718.05	1,528.27	2,396.62	3,323.20	4,336.31	5,335.53	6,320.38
Min DSCR	Ratio		7.78								
Average DSCR	Ratio		11.65								
IRR	%		24.97%								
COC	%		16.00%								
Gap between IRR and CoC	%		8.97%								

Financial Analysis

Margins

As per D&B India's assessment, the average EBIDTA margin for the project is 10.51 % for projected tenure from FY 27 to FY 34. The margins are reasonable and in line with margin achieved by the Company in existing unit.

The average net margin for the project is ~ 7.19 % which is reasonable considering debt requirement proposed by the Company.

Debt Equity Ratio

The company has proposed to raise fund through initial public offer from the investor which is major source of funding for the proposed project i.e. INR 3300 million. Besides this, the Company has proposed to bring internal accruals of INR 171.71 crores towards project funding as promoter's contributions.

Besides this, the Company has also infuse INR 117.62 million for acquisition of land from internal accruals. However, as land cost is not considered in the project cost, so equity contribution towards the same is not included in means of finance.

As per projected financial statements, the needs to infuse fund amounting to 1000.00 million in initial years of operation of the proposed project to maintain positive cashflow. The same would be infused from internal accruals.

Debt Service Coverage Ratio

As per D&B India's assessment, the debt service coverage ratio and interest coverage ratio of the project is depicted in the following exhibit:

INR Million

Particular	Mar-27	Mar-28
PAT	557.97	702.87
Add: Depreciation	152.81	152.81
Add: Interest on Term Loan	9.17	1.15
Total Accruals (A)	719.95	856.83
Interest on Term Loan	9.17	1.15
Repayment of Term Loan	83.33	41.67
Total Obligation (B)	92.50	42.81

DSCR (A/B)	7.78	20.01
Minimum DSCR	7.78	
Average DSCR (overall period)	11.65	

The minimum debt service coverage ratio of the project is 7.78 and the average debt service coverage ratio of the Project is 11.65 which provides comfortable cushion for debt repayment.

Internal Rate of Return

As per D&B India's assessment, estimated interest coverage ratio is mentioned in the table below –

INR Million

Particulars	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Inflows										
PAT	-	-	557.97	702.87	760.69	817.63	875.86	861.59	846.59	832.21
Add: Depreciation	-	-	152.81	152.81	152.81	152.81	152.81	152.81	152.81	152.81
Add: Interest on TL	-	-	9.17	1.15	-	-	-	-	-	-
Add: Salvage Value of Assets										2,324.78
Add: Release of WVC Margin										1,949.20
Total Inflows	-	-	719.95	856.83	913.50	970.44	1,028.68	1,014.40	999.40	5,259.00
Outflows										
CAPEX- New Project	-865.43	-2606.28	0.00	0.00						
Net Flows	(865.43)	(2,606.28)	719.95	856.83	913.50	970.44	1,028.68	1,014.40	999.40	5,259.00
IRR	24.97%									

As per D&B India's assessment, the IRR of the project is estimated at 24.97 % which is higher than estimated cost of capital.

Cost of Capital

INR Million

Particulars	Amount (INR Cr)	Cost of Fund	Tax rate	Post tax Cost of Capital %	Proportion	WACC
Internal Cash Accruals	171.71	16.00%		16.00%	4.95%	0.79%
Term Loan	0.00	11.00%	21.59%	8.63%	0.00%	0.00%
Fresh issue of shares	3300.00	16.00%		16.00%	95.05%	15.21%
Post tax CoC						16.00%

Breakeven Analysis

Break even analysis for the project is mentioned in the table below:

INR Million

Particular	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Capacity Utilization	70%	80%	85%	90%	95%	95%	95%	95%
Sales	8,558.26	9,961.12	10,599.09	11,223.40	11,847.64	11,860.58	11,860.65	11,860.65
Variable Costs								
Raw Material Expenses	6,375.60	7,286.40	7,741.80	8,197.20	8,652.60	8,652.60	8,652.60	8,652.60
Packaging Cost	97.02	110.88	117.81	124.74	131.67	131.67	131.67	131.67
Consumables, Stores & Spares	221.76	253.44	269.28	285.12	300.96	300.96	300.96	300.96
Utility Cost	738.14	784.79	808.11	831.43	854.75	854.75	854.75	854.75
Freight Outward Cost	138.60	158.40	168.30	178.20	188.10	188.10	188.10	188.10
Manpower Expenses	91.50	96.08	100.88	105.92	111.22	116.78	122.62	128.75
Change in Inventory	(159.54)	(22.13)	(10.84)	(10.80)	(10.81)	(0.21)	(0.17)	(0.18)
Working Capital Interest	-	-	-	-	-	-	-	-
Total Variable Cost	7,503.08	8,667.85	9,195.33	9,711.81	10,228.50	10,244.65	10,250.53	10,256.66
Contribution	1,055.18	1,293.27	1,403.75	1,511.58	1,619.14	1,615.93	1,610.11	1,603.99
Fixed Costs								
Repairs & Maintenance	33.94	35.64	37.42	39.30	41.26	43.32	45.49	47.76
Selling and Distribution expenses	171.17	199.22	211.98	224.47	236.95	237.21	237.21	237.21
General and Admn expenses	30.00	31.50	33.08	34.73	36.47	38.29	40.20	42.21
Salary - fixed Cost	8.40	8.82	9.26	9.72	10.21	10.72	11.26	11.82

Particular	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Software Cost								
Depreciation	152.81	152.81	152.81	152.81	152.81	152.81	152.81	152.81
Interest on TL	9.17	1.15	-	-	-	-	-	-
Research & Development Cost								
Total Fixed Costs	405.49	429.14	444.55	461.03	477.70	482.36	486.97	491.82
Profit	649.69	864.13	959.20	1,050.55	1,141.44	1,133.58	1,123.14	1,112.17
	-	(0.00)	(0.00)	-	-	-	-	-
Cash Fixed Cost	252.68	276.33	291.74	308.22	324.89	329.54	334.16	339.01
PV Ratio	0.12	0.13	0.13	0.13	0.14	0.14	0.14	0.14
Break even								
Sales	3,288.80	3,305.36	3,356.62	3,423.10	3,495.44	3,540.39	3,587.22	3,636.75
Capacity	26.90%	26.55%	26.92%	27.45%	28.03%	28.36%	28.73%	29.13%
Cash Break Even								
Sales	2,049.38	2,128.37	2,202.81	2,288.48	2,377.28	2,418.78	2,461.55	2,506.79
Capacity	16.76%	17.09%	17.67%	18.35%	19.06%	19.37%	19.72%	20.08%
Margin of Safety								
Sales	5,269.47	6,655.76	7,242.47	7,800.29	8,352.20	8,320.20	8,273.43	8,223.89
Capacity	43.10%	53.45%	58.08%	62.55%	66.97%	66.64%	66.27%	65.87%

It is estimated that the Company will achieve break even at 26.90 % in FY 27, first full year of operation and cash break even at 16.76 % in FY 27.

Sensitivity Analysis

A sensitivity analysis was carried out to assess the impact of the following scenarios on the major financial parameters.

The summary of sensitivity analysis is provided in the following exhibit:

Scenario	Proposed Project			The Company		
	Average DSCR	Minimum DSCR	IRR	Average DSCR	Minimum DSCR	IRR
Base Case	11.65	7.78	24.97%	4.68	1.79	34.05%
Sales price reduce by 5 %	6.75	4.35	15.81%	3.14	1.49	19.96%
Capacity Utilisation reduce by 5 %	10.55	6.99	23.07%	4.47	1.77	31.96%
Raw material price increase by 5 %	7.92	5.26	18.17%	3.52	1.57	23.43%
Interest rate increase by 2%	11.50	7.65	24.98%	4.53	1.74	33.63%

The sensitivity analysis shows that project IRR and DSCR are more sensitive to reduction in mark up and increment in raw material prices. However, in estimated adverse scenarios, minimum DSCR remains above 1.50 and average DSCR remains above 3.00 which provides comfortable cushion in debt repayment.

Risk Analysis & Mitigation

The risk analysis, allocation & mitigation is shown in the following table:

Key Risks	Risk Carrier	Proposed Mitigation of Risk
Experience & Capability	PBL	The Company is already into the same line of business of maize processing since last few years. Further, the promoters of the Company have around 10 years of experience in the maize processing industry. The Company is already operating 800 TPD plant at R.S No-972, 3rd KM on Gopalapuram Road, Deverapalli, West Godavari, AP-534313 and as informed to D&B, it has achieved capacity utilisation of more than 90 %. The Company is manufacturing value added products along with starch and co products. The Company has established network to procure maize and to sell end products. The Company has executed expansion projects also in the existing unit. Therefore, experience and capability risk is envisaged low for the project. The Company has to ensure recruiting & retaining competent technical staff for smooth operation of the proposed project.
Time Overrun	PBL	PBL had provided D&B India with a detailed implementation schedule. The Company is already in possession of the land for the project. The Company has identified suppliers and received quotations for the plant and machinery and received civil construction estimates. As observed during the site visit, the civil work for the project is yet to be initiated. COD of April 2026 estimated by the Company is achievable provided the Company will obtain all necessary / statutory approvals and permissions in time and would procure all critical plant and machinery as indicated in the implementation schedule. D&B-India advises the Company to strictly adhere to the implementation schedule, obtain necessary approvals, funds, plant and machineries on time to avoid any time over-run.
Cost Overrun		D&B-India notes that the project is under implementation, the Company

Key Risks	Risk Carrier	Proposed Mitigation of Risk
	PBL	has acquired the land for the proposed project. The Company has identified suppliers and received quotations for plant and machineries and received civil construction estimates from architect. Considering the current status of the project and as per the discussion with the promoters, to take care of cost escalations, a contingency of 3.00% has been considered. In case there is any further cost overrun, the Company needs to infuse additional funds to meet the shortfall.
Technology Risk	PBL	The Company has obtained quotations from reputed suppliers for proposed project. The Company has proposed to deploy existing and established technology for manufacturing the proposed products. The suppliers are having adequate experience and expertise in providing after sales service for identified equipment's.
Operational Risk	PBL	The Company is already into the same line of business of maize processing since last few years. Further, the promoters of the Company have around more than 10 years of experience in the maize processing industry. The project location is well connected through roads, railways, market, communication, power and water resources and has availability of the required technical, managerial, as well as skilled and unskilled manpower for implementation and subsequent operations of the project.
Raw Material Availability	PBL	The Company is using maize as a key raw material for the existing operations of the Company and the same raw material is proposed to be used for the proposed project. The Company is currently sourcing maize from farmers and mandis (traders) located near the plant & from nearby regions. It has network of maize suppliers for existing unit. The project is proposed in Madhya Pradesh which is different state and therefore, the company has to set up new network for procurement of maize. Madhya Pradesh is second largest producer of maize, therefore

Key Risks	Risk Carrier	Proposed Mitigation of Risk
		maize availability is not a challenge. Considering increasing demand for maize from other industries and maize processing units, the Company has to work out procurement strategy to ensure timely purchase of quality maize. India is amongst the top ten maize producers in the world, contributing to nearly 2 to 3% of global maize production. The country is also one of the key exporters of maize, ranked among the top 5 global exporters. Domestically, maize production accounts for 9% of the total food grain production in India. This makes it the third most grown food grain in India, after rice and wheat. The prices of key raw materials have been volatile. Increase in cost of raw material has an impact on the profitability of the Company. The same has been captured in terms of sensitivity analysis where it can be seen that even with an increase of 5% in costs of raw material, the project DSCR will be above 1. Moreover, the end product prices generally move in tandem with the raw material price and the industry is able to pass on the price hike, albeit, with a time lag.
Demand / Off take Risk	PBL	Industrial applications, which includes production of starch and additives for food processing industry, is the second largest usage of maize in the country. Globally more than half of starch produced is converted into different derivatives which are in turn used as food additives. In US and EU region which has a well-developed food processing industry this proportion is as high as 60%. In India too, food processing sector forms the largest consumer of starch derivatives; its share estimated to be close 50%, lower than global average. Demand for starch derivatives in the country is driven primary by food processing sector. In food processing sector starch derivatives is used in infant foods, instant foods, confectionary, bakery products, and other processed foods. Apart from food starch derivatives are also used in pharmaceutical preparations as additives.

Key Risks	Risk Carrier	Proposed Mitigation of Risk
		The promoters of the Company have around more than 10 years of experience in the maize processing industry. As the Company is already into the same line of business, it has existing set of customers, whom it intends to supply the finished goods from the proposed project. The proposed capacity utilization levels are critical to the project so in order to achieve the same, the Company has to make proper marketing arrangements to maintain the regular off-take of finished products. As the Company is expanding the capacity by 1200 TPD as against the existing capacity of 800 TPD of maize crushing.
Pricing level and sustainability	PBL	The finished goods price level has been considered at current market level basis the existing industry condition and based on the existing operations information shared by the Company. Further, the downside impact, if any, on the pricing level or capacity utilization of the proposed Project has been captured in terms of Sensitivity Analysis section of this report. The Company has to maintain adequate price level to meet the projected revenue.
Statutory Approvals	PBL	The Company has planned to obtain all relevant approvals at appropriate stages as per the requirement. Detailed note on the status of Statutory Approvals has been provided in the Technical Section of this report. D&B India, advises the Company to complete the process in timely manner to avoid any adverse impact on project.
Foreign Exchange Fluctuation	PBL	The Company will import plant and machinery for production process and will also sell the finished products in the international markets so unfavorable fluctuation in exchange rate may affect the Company. The Company may consider entering into appropriate forward contracts as required and hedge its position to mitigate the risk.
Force Majeure Risk	PBL /Insurers	The Company needs to take adequate insurance cover for insurable Force Majeure risks.

SWOT Analysis

Strength	Weakness
- The Company is already into the same line of business of maize processing since last few years. Further, the promoters of the Company have around more than 10 years of experience in the maize processing industry. - The project is proposed in Madhya Pradesh which is second largest producer of Maize. - The technology selected is well proven technology for the production process. - As the Company is already into the same line of business, it has existing set of customers, whom it intends to supply the finished goods from the proposed project and as well existing raw material suppliers.	The price of the primary raw materials, an agricultural produce and a major cost element, is volatile and depends upon factors such as rain & demand-supply. <i>However, increment in raw material prices can be passed on to end uses, thus the impact of any adverse movement in raw material prices are expected to largely offset in due course of time.</i>
Opportunity	Threat
- India is amongst the top ten maize producers in the world, contributing to nearly 2 to 3% of global maize production. The country is also one of the key exporters of maize, ranked among the top 5 global exporters. Domestically, maize production accounts for 9% of the total food grain production in India. This makes it the third most grown food grain in India, after rice and wheat. - According to Ministry of Agriculture & Farmers Welfare, annual maize production in India is estimated to be 32.4 million tons in FY 2022. Annual production increased by a CAGR of nearly 5% during the last five years (FY 2017-22).	- The generic threat of economic slowdown exists, which may subdue the domestic demand for the products. - Capacity additions by other players, or new entrants in the area, may lead to increased competition. - Increasing usage of maize in other industries like ethanol may impact availability of maize and in turn prices of maize.

- Industrial applications, which includes production of starch and additives for food processing industry, is the second largest usage of maize in the country. Globally more than half of starch produced is converted into different derivatives which are in turn used as food additives. In US and EU region which has a well-developed food processing industry this proportion is as high as 60%.
- In India too, food processing sector forms the largest consumer of starch derivatives; its share estimated to be close 50%, lower than global average. Demand for starch derivatives in the country is driven primary by food processing sector. In food processing sector starch derivatives is used in infant foods, instant foods, confectionary, bakery products, and other processed foods. Apart from food starch derivatives are also used in pharmaceutical preparations as additives.
- Nearly 60% of the maize consumed in the country is accounted by feed industry, while about 20% is consumed for industrial purposes (including manufacturing of food & beverage products). Thus, these two end use segments have the biggest influence over the maize demand pattern in the country. India's compound feed industry has been growing by 5 to 7% per annum, over the past few years. Demand growth is driven by poultry, dairy, and aqua feed.
- As per a study the per capita animal protein consumption in India has increased by nearly 82% between 1980 and 2013. Increasing affluence and changing food consumption pattern are two of the several factors that are driving animal protein consumption in India.

- According to industry estimates, the consumption of maize is set to touch nearly 44 million tons by FY 2025, up from the current level of nearly 28.5 million tons. The biggest demand would come from the feed sector. The demand for animal protein is increasing at a faster rate, and to meet this demand animal husbandry industry needs to raise its yield.
- Maize starch exports from India witnessed a strong increase in the past couple of years, after a drastic drop in FY 2020. Annual volume of exports reached a record high of nearly 529,000 tons in FY 2022. Aggressive growth in exports to Indonesia and Malaysia have played a major role in increasing overall maize starch exports from India. The combined volume of maize starch exported to Indonesia and Malaysia in FY 2021 and FY 2022 was nearly 240,000 tons and 359,000 tons respectively. In both the years, this accounted for 65 – 70% of total volume of maize starch exported from India.

Conclusion

The objective of the study was to assess techno economic viability of the proposed 1200 TPD maize processing unit at Plot Numbers: A4, A5, A6; Sector A, Mohasa Babai Industrial Area, Narmadapuram District, Madhya Pradesh -461661. D&B India has assessed the techno economic viability of the project based on the data provided by the Company and other market information based on primary and secondary research.

While assessing the techno economic viability of the project, D&B India considered the following major factors:

- Project specific attributes, both positive and negative.
- Appropriateness of the selected technology.
- Appropriateness of installed capacity from market point of view.
- Reasonableness of the Project Cost.
- Economic viability of the unit.

Technical Assessment

Land

The Company has acquired 109.80 Acres leased hold land for the term of ninety-nine years commencing on the 30th day of August 2024 from MPIDC Regional Office Narmadapuram for total consideration of INR 367.62 million situated at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist. Narmadapuram, MP.

Land Allotment - MP Industrial Development Corporation Ltd has allotted land parcel of area admeasuring 4,44,331 Sq. Mt. (44.433 Hect.) situated at Plot No. A-4, A-5 & A-6 Mohasa-Babai, Dist. Narmadapuram, MP for amount deposited of INR 34,69,54,856.00 to M/s. Paramesu Biotech Limited. (Ref - MPIDC/RO/Narmadapuram/2024/346 Dtd. 29-08-2024)

Raw Materials

The Company is using maize as a key raw material for the existing operations of the Company and the same raw material is proposed to be used for the proposed project.

The Company is currently sourcing maize from farmers and mandis located near the plant & from nearby regions. It has network of maize suppliers for existing unit.

The project is proposed in Madhya Pradesh in different state and therefore, the company has to set up new network for procurement of maize. Madhya Pradesh is second largest producer of maize, therefore maize availability is not a challenge. Considering increasing demand for maize from other industries and maize processing units, the Company has to work out procurement strategy to ensure timely purchase of quality maize.

Power

The Company has estimated connected load of approximately 12,000 KW which would be sourced from state power grid to establish 1200 TPD Maize Processing Plant to produce Starch, Germs, Fiber, Gluten, and Corn Steep Liquor at Mohasa Babai Industrial Area, Narmadapuram, Madhya Pradesh.

PBL has indicated that the 12,000 KW figure encompasses both equipment and lighting loads. The section-wise power demand analysis, including the plant's lighting load, is provided in annexure.

Power tariff for the proposed unit is considered INR 7.50 per unit.

Installed Capacity

The company has identified the major suppliers for the proposed 1,200 TPD maize processing plant. These include M/s. Oushangyuan Process & Equipment Intelligent Co., M/s. Bhagwat Engg. Pvt. Ltd., M/s. Alfa Laval India Private Limited, and M/s. New AVM Systech Pvt. Ltd.

Based on the detailed shared by the Company regarding procurement of various equipment, the plant's installed capacity at 100% utilization, considering input material, material yield, and process loss for the main and co products, is reasonable, subject to the Company obtains performance guarantee from the key suppliers to ensure achievability of the proposed installed capacity.

Implementation Schedule

PBL had provided D&B India with a detailed implementation schedule. The Company is already in possession of the land for the project. The Company has identified suppliers and received quotations for the plant and machineries and received civil construction estimates As observed during the site visit, the civil work for the project is yet to be initiated.

COD of April 2026 estimated by the Company is achievable provided the Company will obtain all necessary / statutory approvals and permissions in time and would procure all critical plant and machineries as indicated in the implementation schedule.

Financial Assessment

- As per D&B India's assessment, the average EBIDTA margin for the project is 10.51 % for projected tenure from FY 27 to FY 34. The margins are reasonable and in line with margin achieved by the Company in existing unit.
- The average net margin for the project is ~ 7.19 % which is reasonable considering debt requirement proposed by the Company.
- The company has proposed to raise fund through initial public offer from the investor which is major source of funding for the proposed project i.e. INR 3300 million. Besides this, the Company has

proposed to bring internal accruals of INR 171.71 million towards project funding as promoter's contributions. The Company has availed term loan of INR 250 million for procurement of land and its repayment is already started. However, as land cost is not considered in the project cost, term loan availed for procurement of land is also not included in means of finance.

- The minimum debt service coverage ratio of the project is 7.78 and the average debt service coverage ratio of the Project is 11.65 which provides comfortable cushion for debt repayment.
- As per D&B India's assessment, the IRR of the project is estimated at 24.97 % which is higher than estimated cost of capital.

Critical Success Factors

- **The Company should adhere to the project implementation schedule**

Considering the time required for these kinds of projects, the implementation schedule appears reasonable. However, as purchase order for machinery is not placed yet, the Company has to incorporate conditions to insist timely delivery of plant and machinery at the time of placing purchase order of the machinery. The Company has to rigorously monitor implementation activity to achieve planned implementation schedule.

- **The promoters should plan to deploy standard operating practices & good management practices**

The promoters have experience in the industry. They will have to deploy the standard operating practices for the project which are followed in the industry and ensure employment, training & retaining of qualified & experienced people to run the project.

- **Approvals**

The Company needs to obtain necessary approval for smooth progress of the project. The delay will adversely affect the progress of the project timeline and cost. The Company should ensure timely approval to follow the implementation schedule.

- **Cost of Raw Materials and Operating Cost**

Raw material availability risk has been not envisaged for the project at proposed location. However, price of agri products is volatile in nature due to various factors. Therefore the Company has to device proper strategy for procurement of various material.

Subject to the above assessment & Critical Success Factors, various scenarios mentioned in sensitivity analysis, SWOT analysis and Risk analysis, D&B India is of the opinion that the project is technically feasible and commercially viable.

Annexure I: Projected Financial Statements

Profitability Statement

INR Million

Particular	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Revenue								
Revenue from operation	8,558.26	9,961.12	10,599.09	11,223.40	11,847.64	11,860.58	11,860.65	11,860.65
Total Revenue	8,558.26	9,961.12	10,599.09	11,223.40	11,847.64	11,860.58	11,860.65	11,860.65
Expenditure								
Material Cost	6,375.60	7,286.40	7,741.80	8,197.20	8,652.60	8,652.60	8,652.60	8,652.60
Consumables	221.76	253.44	269.28	285.12	300.96	300.96	300.96	300.96
Utility Cost	738.14	784.79	808.11	831.43	854.75	854.75	854.75	854.75
Salary - Variable Cost	91.50	96.08	100.88	105.92	111.22	116.78	122.62	128.75
Repairs & Maintenance	33.94	35.64	37.42	39.30	41.26	43.32	45.49	47.76
Packaging Material Cost	97.02	110.88	117.81	124.74	131.67	131.67	131.67	131.67
Other Manufacturing Expenses	138.60	158.40	168.30	178.20	188.10	188.10	188.10	188.10
Total Cost of Production	7,696.57	8,725.62	9,243.60	9,761.91	10,280.56	10,288.18	10,296.19	10,304.60
WIP								
Opening Stock	-	64.14	72.71	77.03	81.35	85.67	85.73	85.80
Closing Stock	64.14	72.71	77.03	81.35	85.67	85.73	85.80	85.87
Finished Goods								
Opening Stock	-	95.41	108.96	115.49	121.97	128.45	128.60	128.70
Closing Stock	95.41	108.96	115.49	121.97	128.45	128.60	128.70	128.81
Total Cost of Sales	7,537.03	8,703.49	9,232.76	9,751.11	10,269.76	10,287.97	10,296.02	10,304.42
Admin Cost	30.00	31.50	33.08	34.73	36.47	38.29	40.20	42.21
Salary - fixed Cost	8.40	8.82	9.26	9.72	10.21	10.72	11.26	11.82
Selling & Distribution Expenses	171.17	199.22	211.98	224.47	236.95	237.21	237.21	237.21

Particular	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
EBIDTA	811.67	1,018.09	1,112.01	1,203.37	1,294.26	1,286.39	1,275.95	1,264.98
Depreciation & Amortization	152.81	152.81	152.81	152.81	152.81	152.81	152.81	152.81
EBIT	658.86	865.28	959.20	1,050.55	1,141.44	1,133.58	1,123.14	1,112.17
Interest on Term Loan	9.17	1.15	-	-	-	-	-	-
Interest on WC Loan	-	-	-	-	-	-	-	-
PBT	649.69	864.13	959.20	1,050.55	1,141.44	1,133.58	1,123.14	1,112.17
Tax	91.72	161.26	198.51	232.92	265.58	271.99	276.55	279.96
PAT	557.97	702.87	760.69	817.63	875.86	861.59	846.59	832.21

Balance Sheet

INR Million

Particular	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
EQUITY AND LIABILITIES										
Shareholders Funds										
(a) Share capital	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
(b) Reserves and Surplus	-	-	557.97	1,260.84	2,021.53	2,839.16	3,715.03	4,576.62	5,423.20	6,255.41
(c) Internal Cash Accruals	327.59	581.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00	1,331.00
Total Shareholders Fund	3,627.59	3,881.00	5,188.97	5,891.85	6,652.53	7,470.16	8,346.03	9,207.62	10,054.20	10,886.41
Non-Current Liabilities										
(a) Long-term borrowings	208.33	41.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(b) Deferred Tax liabilities [Net]										
(c) Other non-current Liabilities (Unsecured Loan)										
(d) Quasi Equity USL										
Total Non-Current Liabilities	208.33	41.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Particular	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Current Liabilities										
(a) Short Term Borrowings	-	-	-	-	-	-	-	-	-	-
(b) Trade Payables	-	-	531.30	607.20	645.15	683.10	721.05	721.05	721.05	721.05
(c) Other Current Liabilities										
(d) Deferred Tax Liability										
(e) Current maturities of TL within 1 year	83.33	83.33	41.67	-	-	-	-	-	-	-
Total Current Liabilities	83.33	83.33	572.97	607.20	645.15	683.10	721.05	721.05	721.05	721.05
TOTAL [A]	3,919.26	4,006.00	5,761.94	6,499.05	7,297.68	8,153.26	9,067.08	9,928.67	10,775.25	11,607.46
ASSETS										
Non-Current Assets										
(a) Property, Plant and Equipment										
(i) Gross Tangible Assets			3,547.28	3,547.28	3,547.28	3,547.28	3,547.28	3,547.28	3,547.28	3,547.28
Accum. Depre	-	-	152.81	305.62	458.44	611.25	764.06	916.87	1,069.68	1,222.50
(i) Tangible Assets	-	-	3,394.47	3,241.66	3,088.84	2,936.03	2,783.22	2,630.41	2,477.60	2,324.78
(ii) Capital work-in-progress	1,162.54	3,547.28								
(b) Non Current Investments										
(c) Long-term loans and advances										
(d) Other Non Current Assets	70.51	292.05	292.05	292.05	292.05	292.05	292.05	292.05	292.05	292.05
Total Non-Current Assets	1,233.05	3,839.33	3,686.52	3,533.71	3,380.90	3,228.09	3,075.27	2,922.46	2,769.65	2,616.84
Current Assets										
(a) Inventories	-	-	1,240.62	1,417.20	1,505.26	1,593.28	1,681.30	1,681.52	1,681.68	1,681.86
(b) Trade Receivables	-	-	713.19	830.09	883.26	935.28	987.30	988.38	988.39	988.39
(c) Short-term loans and advances										
(d) Other Currents Assets										
(e) Cash & Cash Equivalents	2,686.21	166.67	121.61	718.05	1,528.27	2,396.62	3,323.20	4,336.31	5,335.53	6,320.38
Total Current Assets	2,686.21	166.67	2,075.42	2,965.34	3,916.78	4,925.18	5,991.80	7,006.21	8,005.60	8,990.62
TOTAL [B]	3,919.26	4,006.00	5,761.94	6,499.05	7,297.68	8,153.26	9,067.08	9,928.67	10,775.25	11,607.46

Cashflow Statement

INR Million

Particular	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Cash Flow from Operations										
Profit After tax	-	-	557.97	702.87	760.69	817.63	875.86	861.59	846.59	832.21
Add: Depreciation and amortization	-	-	152.81	152.81	152.81	152.81	152.81	152.81	152.81	152.81
Change in Working Capital										
Change in Current Assets	-	-	(1,953.81)	(293.48)	(141.23)	(140.04)	(140.05)	(1.29)	(0.17)	(0.18)
Change in Current Liabilities	83.33	-	489.63	34.23	37.95	37.95	37.95	-	-	-
Total Cashflow from Operations	83.33	-	(753.39)	596.44	810.22	868.35	926.58	1,013.11	999.23	984.84
Cash Flow from Investing										
Change in Fixed Assets	(1,162.54)	(2,384.74)	-	-	-	-	-	-	-	-
Change in WIP										
Change in non current assets	(70.51)	(221.54)	-	-	-	-	-	-	-	-
Total Cashflow from Investing	(1,233.05)	(2,606.28)	-	-	-	-	-	-	-	-
Cash flow from Financing										
Change in Share Capital	3,300.00	-	-	-	-	-	-	-	-	-
Change in Internal Cash Accruals	327.59	253.41	750.00	-	-	-	-	-	-	-
Change in unsecured Loan		-	-	-	-	-	-	-	-	-
Change in Term Loan	208.33	(166.67)	(41.67)	-	-	-	-	-	-	-
Change in Working Capital Loan	-	-	-	-	-	-	-	-	-	-
Total Cashflow from financing	3,835.92	86.75	708.33	-	-	-	-	-	-	-
Opening Cash balance		2,686.21	166.67	121.61	718.05	1,528.27	2,396.62	3,323.20	4,336.31	5,335.53
Net Cashflow	2,686.21	(2,519.54)	(45.06)	596.44	810.22	868.35	926.58	1,013.11	999.23	984.84
Closing Cash balance	2,686.21	166.67	121.61	718.05	1,528.27	2,396.62	3,323.20	4,336.31	5,335.53	6,320.38

Annexure 2: Financial statement of existing operation

Assumptions

Product mix

PRODUCT	Standard Yields	Std Production @ 100 % Capacity	% OF PROD	Average Selling Price (INR /Ton)
Starch	45.75%	366	46.68%	35,250
Modified Starch	5.00%	40	5.10%	42,000
Liquid glucose	12.50%	100	12.76%	35,500
MDP	3.75%	30	3.83%	47,500
Total Startches		536	68.37%	
Germes	6.50%	52	6.63%	50,000
Fibre	10.00%	80	10.20%	17,500
Gluten	4.50%	36	4.59%	48,000
CSL	10.00%	80	10.20%	7,500
Total Co products		248	31.63%	
Total		784	100.00%	

Installed Capacity

Particular	Description	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Starch											
Starch	MT/Da y	366	366	366	366	366	366	366	366	366	366
Modified Starch	MT/Da y	40	40	40	40	40	40	40	40	40	40
Liquid glucose	MT/Da y	100	100	100	100	100	100	100	100	100	100
MDP	MT/Da y	30	30	30	30	30	30	30	30	30	30
<i>Total Startches</i>		536	536	536	536	536	536	536	536	536	536
Co product											
Germes	MT/Da y	52	52	52	52	52	52	52	52	52	52
Fibre	MT/Da y	80	80	80	80	80	80	80	80	80	80
Gluten	MT/Da y	36	36	36	36	36	36	36	36	36	36

CSL	MT/Da y	80	80	80	80	80	80	80	80	80	80
Total Co products		248	248	248	248	248	248	248	248	248	248
Grand Total		784	784	784	784	784	784	784	784	784	784
Operational Months	months	12	12	12	12	12	12	12	12	12	12
Total working days	in an year	350	350	350	350	350	350	350	350	350	350
Total	MT/A nnum	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400	2,74 ,400

Capacity Utilisation

%

Particular	Descri ption	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Starch											
Starch	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Modified Starch	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Liquid glucose	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
MDP	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Co product											
Germes	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Fibre	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Gluten	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
CSL	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Effective utilisation		92.5 0%	95.0 0%	95.0 0%	95.0 0%	95.0 0%	95.0 0%	95.0 0%	95.0 0%	95.0 0%	95.0 0%

Production

Particular	Descri ption	Mar- 25	Mar- 26	Mar- 27	Mar- 28	Mar- 29	Mar- 30	Mar- 31	Mar- 32	Mar- 33	Mar- 34
Starch											
Starch	MT	1,18, 493	1,21, 695	1,21, 695	1,21, 695	1,21, 695	1,21, 695	1,21, 695	1,21, 695	1,21, 695	1,21, 695
Modified Starch	MT	12,95 0	13,30 0	13,30 0	13,30 0	13,30 0	13,30 0	13,30 0	13,30 0	13,30 0	13,30 0
Liquid glucose	MT	32,37 5	33,25 0	33,25 0	33,25 0	33,25 0	33,25 0	33,25 0	33,25 0	33,25 0	33,25 0
MDP	MT	9,713	9,975	9,975	9,975	9,975	9,975	9,975	9,975	9,975	9,975
Total Startches	MT	1,73, 530	1,78, 220	1,78, 220	1,78, 220	1,78, 220	1,78, 220	1,78, 220	1,78, 220	1,78, 220	1,78, 220
Co product											
Germes	MT	16,83 5	17,29 0	17,29 0	17,29 0	17,29 0	17,29 0	17,29 0	17,29 0	17,29 0	17,29 0
Fibre	MT	25,90 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0
Gluten	MT	11,65 5	11,97 0	11,97 0	11,97 0	11,97 0	11,97 0	11,97 0	11,97 0	11,97 0	11,97 0

CSL	MT	25,90 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0	26,60 0
Total Co products	MT	80,29 0.00	82,46 0.00	82,46 0.00	82,46 0.00	82,46 0.00	82,46 0.00	82,46 0.00	82,46 0.00	82,46 0.00	82,46 0.00
Grand Total	MT	2,53, 820. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00	2,60, 680. 00

WIP

Particular	Description	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Starch											
Starch	MT	1,481	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521
Modified Starch	MT	162	166	166	166	166	166	166	166	166	166
Liquid glucose	MT	405	416	416	416	416	416	416	416	416	416
MDP	MT	121	125	125	125	125	125	125	125	125	125
Total Startches	MT	2,169	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228
Co product		-									
Germes	MT	210	216	216	216	216	216	216	216	216	216
Fibre	MT	324	333	333	333	333	333	333	333	333	333
Gluten	MT	146	150	150	150	150	150	150	150	150	150
CSL	MT	324	333	333	333	333	333	333	333	333	333
Total Co products	MT	1,003 .63	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75
Grand Total	MT	3,17 2.75	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50

Finished Goods

Particular	Description	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Starch											
Starch	MT	1,496	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521
Modified Starch	MT	160	166	166	166	166	166	166	166	166	166
Liquid glucose	MT	400	415	416	416	416	416	416	416	416	416
MDP	MT	120	125	125	125	125	125	125	125	125	125
Total Startches	MT	2,175 .74	2,227 .02	2,227 .75	2,227 .75	2,227 .75	2,227 .75	2,227 .75	2,227 .75	2,227 .75	2,227 .75
Co product											
Germes	MT	208	216	216	216	216	216	216	216	216	216
Fibre	MT	320	332	333	333	333	333	333	333	333	333
Gluten	MT	144	150	150	150	150	150	150	150	150	150
CSL	MT	320	332	333	333	333	333	333	333	333	333
Total Co products	MT	991.0 8	1,030 .41	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75	1,030 .75
Grand Total	MT	3,16 6.82	3,25 7.43	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50	3,25 8.50

Quantity Available for Sale

Particular	Description	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Starch											
Starch	MT	1,20,911	1,21,631	1,21,694	1,21,695	1,21,695	1,21,695	1,21,695	1,21,695	1,21,695	1,21,695
Modified Starch	MT	12,628	13,289	13,300	13,300	13,300	13,300	13,300	13,300	13,300	13,300
Liquid glucose	MT	31,571	33,223	33,250	33,250	33,250	33,250	33,250	33,250	33,250	33,250
MDP	MT	9,471	9,967	9,975	9,975	9,975	9,975	9,975	9,975	9,975	9,975
<i>Total Startches</i>		1,74,581	1,78,110	1,78,219	1,78,220	1,78,220	1,78,220	1,78,220	1,78,220	1,78,220	1,78,220
Co product											
Germes	MT	16,417	17,276	17,290	17,290	17,290	17,290	17,290	17,290	17,290	17,290
Fibre	MT	25,257	26,579	26,600	26,600	26,600	26,600	26,600	26,600	26,600	26,600
Gluten	MT	11,365	11,960	11,970	11,970	11,970	11,970	11,970	11,970	11,970	11,970
CSL	MT	25,257	26,579	26,600	26,600	26,600	26,600	26,600	26,600	26,600	26,600
<i>Total Co products</i>	MT	78,295.30	82,393.54	82,459.66	82,460.00	82,460.00	82,460.00	82,460.00	82,460.00	82,460.00	82,460.00
Grand Total	MT	2,52,876.43	2,60,503.64	2,60,678.93	2,60,680.00	2,60,680.00	2,60,680.00	2,60,680.00	2,60,680.00	2,60,680.00	2,60,680.00

Price

INR / Package

Particular	Description	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Starch											
Starch	INR	35,250.00	35,250.00	35,250.00	35,250.00	35,250.00	35,250.00	35,250.00	35,250.00	35,250.00	35,250.00
Modified Starch		42,000.00	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
Liquid glucose		35,500.00	35,500.00	35,500.00	35,500.00	35,500.00	35,500.00	35,500.00	35,500.00	35,500.00	35,500.00
MDP		47,500.00	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00
<i>Total Startches</i>											
Co product											
Germes		50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00
Fiber		17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00
Gluten		48,000.00	48,000.00	48,000.00	48,000.00	48,000.00	48,000.00	48,000.00	48,000.00	48,000.00	48,000.00
CSL		7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
<i>Total Co products</i>											
Grand Total											

Revenue

Particular	Description	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Starch											
Starch	INR Million	4,262.11	4,287.48	4,289.73	4,289.75	4,289.75	4,289.75	4,289.75	4,289.75	4,289.75	4,289.75
Modified Starch	INR Million	530.39	558.15	558.60	558.60	558.60	558.60	558.60	558.60	558.60	558.60
Liquid glucose	INR Million	1,120.76	1,179.42	1,180.37	1,180.38	1,180.38	1,180.38	1,180.38	1,180.38	1,180.38	1,180.38
MDP	INR Million	449.88	473.43	473.81	473.81	473.81	473.81	473.81	473.81	473.81	473.81
<i>Total Starches</i>	INR Million	6,363.14	6,498.48	6,502.51	6,502.54	6,502.54	6,502.54	6,502.54	6,502.54	6,502.54	6,502.54
Co product											
Germes	INR Million	820.84	863.80	864.50	864.50	864.50	864.50	864.50	864.50	864.50	864.50
Fiber	INR Million	441.99	465.12	465.50	465.50	465.50	465.50	465.50	465.50	465.50	465.50
Gluten	INR Million	545.54	574.10	574.56	574.56	574.56	574.56	574.56	574.56	574.56	574.56
CSL	INR Million	189.42	199.34	199.50	199.50	199.50	199.50	199.50	199.50	199.50	199.50
<i>Total Co products</i>	INR Million	1,997.79	2,102.36	2,104.05	2,104.06	2,104.06	2,104.06	2,104.06	2,104.06	2,104.06	2,104.06
Grand Total	INR Million	8,360.93	8,600.85	8,606.56	8,606.60	8,606.60	8,606.60	8,606.60	8,606.60	8,606.60	8,606.60

Material Cost

Particular	Description	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Maize	TPA	2,59,000.00	2,66,000.00	2,66,000.00	2,66,000.00	2,66,000.00	2,66,000.00	2,66,000.00	2,66,000.00	2,66,000.00	2,66,000.00
Starch	INR	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000

Material Cost

Particular	Description	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Starch	INR Mn	5,957.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00
Total		5,957.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00

Salary Cost

INR Cr/Annum

Particular	Description	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Salary cost											
Existing	per Mt	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
Total	INR Min	226.63	232.75	232.75	232.75	232.75	232.75	232.75	232.75	232.75	232.75

Power Cost

Particular		Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Connected Load	KW	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Power Factor	Ratio	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Load Factor	%	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Power Consumption per Annum	Units	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400	2,20,37,400
Power Tariff (Subsidy Rs l)	INR	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Total Power Cost	INR Mn	152.88	157.02	157.02	157.02	157.02	157.02	157.02	157.02	157.02	157.02

Repairs & Maintenance

Particular		Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Increment in each following year		5.00 %	5.00 %	5.00 %	5.00 %	5.00 %	5.00 %	5.00 %	5.00 %	5.00 %	5.00 %
Repairs & Maintenance Cost	INR Million	11.50	12.08	12.68	13.31	13.98	14.68	15.41	16.18	16.99	17.84

Steam requirement

S. No.	Units	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
		Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
Maize Crushing Capacity	Tons / Day	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00
No of Days	Days	350	350	350	350	350	350	350	350	350	350
Capacity Utilisation	%	92.50 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %	95.00 %
Annual Production		2,59,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000
Husk - INR / Ton	5,000.00										
Steam Required for existing product line	Kgs / Hr	1.01	1	1	1	1	1	1	1	1	1

Total Steam Consumption per Annum	Tons	2,61,590	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000	2,66,000
No of Tons of husk Required to produce one ton of Steam		0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
No of Tons of husk Required P.A		78,477	79,800	79,800	79,800	79,800	79,800	79,800	79,800	79,800	79,800
Steam Cost per annum	INR Million	392.39	399.00	399.00	399.00	399.00	399.00	399.00	399.00	399.00	399.00
Cost per ton	INR/M T	15,150.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
Total Steam Cost	INR Million	362.96	379.05	379.05	379.05	379.05	379.05	379.05	379.05	379.05	379.05

Other Expenses

S. No.		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Packing material	INR Mn / Annum	90.65	93.10	93.10	93.10	93.10	93.10	93.10	93.10	93.10	93.10
Chemicals	INR Mn / Annum	90.65	93.10	93.10	93.10	93.10	93.10	93.10	93.10	93.10	93.10
Stores	INR Mn / Annum	77.70	79.80	79.80	79.80	79.80	79.80	79.80	79.80	79.80	79.80
Manufacturing expenses	INR Mn / Annum	181.30	133.00	133.00	133.00	133.00	133.00	133.00	133.00	133.00	133.00
		700	500	500	500	500	500	500	500	500	500
General Administration	INR Mn / Annum	60.00	63.00	66.15	69.46	72.93	76.58	80.41	84.43	88.65	93.08
Selling & Distribution Expense	INR Mn / Annum	250.83	215.02	206.56	197.95	197.95	197.95	197.95	197.95	197.95	197.95

Working Capital

Particular	Holding Norms (Months)	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Current Assets											
Raw Material	2.00	992.83	1,019.67	1,019.67	1,019.67	1,019.67	1,019.67	1,019.67	1,019.67	1,019.67	1,019.67
Work In Progress	0.15	89.39	91.22	91.23	91.24	91.25	91.26	91.27	91.27	91.29	91.30
Finished Goods	0.15	88.27	91.20	91.23	91.24	91.25	91.26	91.27	91.27	91.28	91.30

Debtors	1.00	700.2 3	720.3 2	720.8 0	720.8 0	721.2 2	721.6 4	722.0 5	722.5 5	723.0 5	723.7 2
Total Current Assets		1,87 0.73	1,92 2.41	1,92 2.93	1,92 2.95	1,92 3.38	1,92 3.81	1,92 4.25	1,92 4.77	1,92 5.29	1,92 5.98
Current Liabilities											
Creditors	1.00	496.4 2	509.8 3	509.8 3	509.8 3	509.8 3	509.8 3	509.8 3	509.8 3	509.8 3	509.8 3
Total Current Liabilities		496. 42	509. 83	509. 83	509. 83	509. 83	509. 83	509. 83	509. 83	509. 83	509. 83
Working Capital Gap		1,37 4.31	1,41 2.58	1,41 3.10	1,41 3.11	1,41 3.55	1,41 3.98	1,41 4.42	1,41 4.94	1,41 5.46	1,41 6.14
Eligible Bank Finance	75%	1,030 .73	1,059 .43	1,059 .82	1,059 .84	1,060 .16	1,060 .49	1,060 .81	1,061 .20	1,061 .59	1,062 .11
Proposed Bank Finance	57	1,030 .73	1,059 .43	1,059 .82	1,059 .84	1,060 .16	1,060 .49	1,060 .81	1,061 .20	1,061 .59	1,062 .11
Margin money		343.5 8	353.1 4	353.2 7	353.2 8	353.3 9	353.5 0	353.6 0	353.7 3	353.8 6	354.0 4
Interest on WC Loan	8.55%	88.13	90.58	90.61	90.62	90.64	90.67	90.70	90.73	90.77	90.81

Profitability

INR Million

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Revenue											
Revenue from operation	6,278.47	8,360.93	8,600.85	8,606.56	8,606.60	8,606.60	8,606.60	8,606.60	8,606.60	8,606.60	8,606.60
Other income	14.38	41.80	43.00	43.03	43.03	48.03	53.03	58.03	64.03	70.03	78.03
Total Revenue	6,292.85	8,402.74	8,643.85	8,649.59	8,649.63	8,654.63	8,659.63	8,664.63	8,670.63	8,676.63	8,684.63
Expenditure											
Material Cost	4,838.57	5,957.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00	6,118.00
Consumables		168.35	172.90	172.90	172.90	172.90	172.90	172.90	172.90	172.90	172.90
Utility Cost	264.63	515.84	536.07	536.07	536.07	536.07	536.07	536.07	536.07	536.07	536.07
Salary - Variable Cost	167.26	226.63	232.75	232.75	232.75	232.75	232.75	232.75	232.75	232.75	232.75
Repairs & Maintenance	10.47	11.50	12.08	12.68	13.31	13.98	14.68	15.41	16.18	16.99	17.84
Packaging Material Cost	-	90.65	93.10	93.10	93.10	93.10	93.10	93.10	93.10	93.10	93.10
Other Manufacturing Expenses	51.94	181.30	133.00	133.00	133.00	133.00	133.00	133.00	133.00	133.00	133.00

Total Cost of Production	5,332.87	7,151.27	7,297.89	7,298.50	7,299.13	7,299.80	7,300.49	7,301.23	7,302.00	7,302.81	7,303.66
WIP											
Opening Stock		-	89.39	91.22	91.23	91.24	91.25	91.26	91.27	91.27	91.29
Closing Stock		89.39	91.22	91.23	91.24	91.25	91.26	91.27	91.27	91.29	91.30
Finished Goods											
Opening Stock	29.40	80.38	88.27	91.20	91.23	91.24	91.25	91.26	91.27	91.27	91.28
Closing Stock	80.38	88.27	91.20	91.23	91.24	91.25	91.26	91.27	91.27	91.28	91.30
Total Cost of Sales	5,281.88	7,053.99	7,293.13	7,298.46	7,299.11	7,299.78	7,300.48	7,301.21	7,301.98	7,302.79	7,303.64
Admin Cost	48.46	60.00	63.00	66.15	69.46	72.93	76.58	80.41	84.43	88.65	93.08
Selling & Distribution Expenses	182.67	250.83	215.02	206.56	197.95	197.95	197.95	197.95	197.95	197.95	197.95
EBIDTA	779.83	1,037.92	1,072.70	1,078.43	1,083.11	1,083.97	1,084.62	1,085.06	1,086.27	1,087.24	1,089.96
Depreciation & Amortization	83.01	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25
EBIT	696.82	924.67	959.45	965.18	969.86	970.72	971.37	971.81	973.02	973.99	976.71
Interest on Term Loan	143.04	98.99	18.33	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	-	-
Interest on WC Loan		88.13	90.58	90.61	90.62	90.64	90.67	90.70	90.73	90.77	90.81
Other Interest Expenses	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51
PBT	544.27	728.05	841.03	865.05	869.73	870.57	871.19	871.60	872.78	873.72	876.39
Tax	140.9	130.30	170.49	186.58	196.33	203.87	210.29	215.74	220.61	224.76	228.79
PAT	403.37	597.75	670.53	678.47	673.40	666.70	660.91	655.86	652.17	648.95	647.61

Balance Sheet

INR Million

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
EQUITY AND LIABILITIES											
Shareholders Funds											

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
(a) Share capital incl. proceeding from IPO	262.58	1,215.18	1,215.18	1,215.18	1,215.18	1,215.18	1,215.18	1,215.18	1,215.18	1,215.18	1,215.18
(b) Reserves and Surplus	1,468.65	2,066.40	2,736.93	3,415.40	4,088.80	4,755.50	5,416.41	6,072.27	6,724.43	7,373.39	8,020.99
(c) USL	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22
(d) Transfer to proposed project		(327.59)	(581.00)	(1,331.00)	(1,331.00)	(1,331.00)	(1,331.00)	(1,331.00)	(1,331.00)	(1,331.00)	(1,331.00)
Total Shareholders Fund	1,799.45	3,022.20	3,439.32	3,367.80	4,041.20	4,707.89	5,368.80	6,024.66	6,676.83	7,325.78	7,973.39
Non-Current Liabilities											
(a) Long-term borrowings	945.15	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
(b) Deferred Tax liabilities [Net]	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80
(c) Other non-current Liabilities	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93
Total Non-Current Liabilities	1,101.88	156.73	156.73	156.73	156.73	156.73	156.73	156.73	156.73	156.73	156.73
Current Liabilities											
(a) Short Term Borrowings	1,045.47	1,030.73	1,059.43	1,059.82	1,059.84	1,060.16	1,060.49	1,060.81	1,061.20	1,061.59	1,062.11
(b) Trade Payables	377.06	496.42	509.83	509.83	509.83	509.83	509.83	509.83	509.83	509.83	509.83
(c) Other Current Liabilities	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71
(d) Current Tax Liabilities	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
(e) Current maturities of TL within 1 year		0.00	-	-	-	-	-	-	-	-	-
Total Current Liabilities	1,495.47	1,600.09	1,642.21	1,642.59	1,642.61	1,642.93	1,643.26	1,643.59	1,643.98	1,644.37	1,644.88
TOTAL [A]	4,396.80	4,779.02	5,238.26	5,167.12	5,840.53	6,507.56	7,168.79	7,824.98	8,477.53	9,126.88	9,775.00
ASSETS											
Non-Current Assets											
(a) Property, Plant and Equipment											
(i) Gross Tangible Assets	2,710.34	2,412.58	2,678.53	2,678.53	2,678.53	2,678.53	2,678.53	2,678.53	2,678.53	2,678.53	2,678.53
Accum. Depre	294.10	407.35	520.60	633.85	747.10	860.35	973.60	1,086.85	1,200.10	1,313.35	1,426.60
(i) Tangible Assets	2,416.24	2,005.23	2,157.93	2,044.68	1,931.43	1,818.18	1,704.93	1,591.69	1,478.44	1,365.19	1,251.94
(ii) Capital work-in-progress	238.89										

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
(b) Non Current Investments											
(c) Long-term loans and advances	35.54	35.54	35.54	35.54	35.54	35.54	35.54	35.54	35.54	35.54	35.54
(d) Other Non Current Assets											
Total Non-Current Assets	2,690.67	2,040.77	2,193.47	2,080.22	1,966.97	1,853.72	1,740.47	1,627.22	1,513.97	1,400.72	1,287.47
Current Assets											
(a) Inventories	996.13	1,170.50	1,202.09	1,202.13	1,202.14	1,202.16	1,202.18	1,202.20	1,202.22	1,202.24	1,202.26
(b) Trade Receivables	562.84	700.23	720.32	720.80	720.80	721.22	721.64	722.05	722.55	723.05	723.72
(c) Short-term loans and advances	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
(d) Other Currents Assets	122.06	122.06	122.06	122.06	122.06	122.06	122.06	122.06	122.06	122.06	122.06
(e) Cash & Cash Equivalents	24.95	745.31	1,000.17	1,041.76	1,828.40	2,608.24	3,382.29	4,151.29	4,916.58	5,678.65	6,439.34
Total Current Assets	1,706.13	2,738.25	3,044.79	3,086.90	3,873.56	4,653.83	5,428.32	6,197.75	6,963.56	7,726.15	8,487.52
TOTAL [B]	4,396.80	4,779.02	5,238.26	5,167.12	5,840.53	6,507.55	7,168.79	7,824.98	8,477.53	9,126.87	9,775.00

Cash Flow Statement

INR Million

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Cash Flow from Operations											
Profit After tax		597.75	670.53	678.47	673.40	666.70	660.91	655.86	652.17	648.95	647.61
Add: Depreciation and amortization		113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25	113.25
Change in Working Capital											
Change in Current Assets		(311.76)	(51.69)	(0.52)	(0.02)	(0.43)	(0.43)	(0.44)	(0.52)	(0.52)	(0.69)
Change in Current Liabilities		119.36	13.42	-	-	-	-	-	-	-	-
Total Cashflow from Operations		518.60	745.51	791.21	786.63	779.51	773.72	768.68	764.90	761.68	760.17
Cash Flow from Investing											
Change in Fixed Assets		297.76	(265.95)	-	-	-	-	-	-	-	-
Change in WIP		238.89									
Change in non current assets		-	-	-	-	-	-	-	-	-	-

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Total Cashflow from Investing		536.65	(265.95)	-	-	-	-	-	-	-	-
Cash flow from Financing											
Change in Share Capital		952.60	-	-	-	-	-	-	-	-	-
Transfer to the Project		(327.59)	(253.41)	(750.00)	-	-	-	-	-	-	-
Change in unsecured Loan		-	-	-	-	-	-	-	-	-	-
Change in deferred tax liabilities		-	-	-	-	-	-	-	-	-	-
Change in Term Loan		(945.15)	-	-	-	-	-	-	-	-	-
Change in Working Capital Loan		(14.74)	28.70	0.39	0.01	0.32	0.33	0.33	0.39	0.39	0.52
Total Cashflow from financing		(334.88)	(224.71)	(749.61)	0.01	0.32	0.33	0.33	0.39	0.39	0.52
Opening Cash balance	24.95	24.95	745.31	1,000.17	1,041.76	1,828.40	2,608.24	3,382.29	4,151.29	4,916.58	5,678.65
Net Cashflow	-	720.36	254.85	41.59	786.64	779.84	774.05	769.00	765.29	762.07	760.68
Closing Cash balance	24.95	745.31	1,000.17	1,041.76	1,828.40	2,608.24	3,382.29	4,151.29	4,916.58	5,678.65	6,439.34

Annexure 3: Financial Statement of the Company

Profitability statement

INR Million

Particular	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Revenue										
Revenue from operation	8,360.93	8,600.85	17,164.82	18,567.72	19,205.68	19,829.99	20,454.24	20,467.18	20,467.24	20,467.24
Other income	41.80	43.00	43.03	43.03	48.03	53.03	58.03	64.03	70.03	78.03
Total Revenue	8,402.74	8,643.85	17,207.86	18,610.75	19,253.72	19,883.03	20,512.27	20,531.21	20,537.27	20,545.27
Expenditure										
Material Cost	5,957.00	6,118.00	12,493.60	13,404.40	13,859.80	14,315.20	14,770.60	14,770.60	14,770.60	14,770.60
Consumables	168.35	172.90	394.66	426.34	442.18	458.02	473.86	473.86	473.86	473.86

Particular	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Utility Cost	515.84	536.07	1,274.21	1,320.85	1,344.18	1,367.50	1,390.82	1,390.82	1,390.82	1,390.82
Salary - Variable Cost	226.63	232.75	324.25	328.83	333.63	338.67	343.97	349.53	355.37	361.50
Repairs & Maintenance	11.50	12.08	46.62	48.96	51.40	53.97	56.67	59.51	62.48	65.60
Packaging Material Cost	90.65	93.10	190.12	203.98	210.91	217.84	224.77	224.77	224.77	224.77
Other Manufacturing Expenses	181.30	133.00	271.60	291.40	301.30	311.20	321.10	321.10	321.10	321.10
Total Cost of Production	7,151.27	7,297.89	14,995.06	16,024.75	16,543.40	17,062.40	17,581.79	17,590.18	17,599.00	17,608.25
WIP										
Opening Stock	-	89.39	91.22	155.37	163.95	168.28	172.61	176.94	177.01	177.09
Closing Stock	89.39	91.22	155.37	163.95	168.28	172.61	176.94	177.01	177.09	177.17
Finished Goods										
Opening Stock	80.38	88.27	91.20	186.64	200.20	206.74	213.23	219.72	219.88	219.99
Closing Stock	88.27	91.20	186.64	200.20	206.74	213.23	219.72	219.88	219.99	220.10
Total Cost of Sales	7,053.99	7,293.13	14,835.48	16,002.60	16,532.54	17,051.59	17,570.97	17,589.95	17,598.81	17,608.06
Admin Cost	60.00	63.00	96.15	100.96	106.01	111.31	116.87	122.71	128.85	135.29
Salary - fixed Cost	-	-	8.40	8.82	9.26	9.72	10.21	10.72	11.26	11.82
Selling & Distribution Expenses	250.83	215.02	377.72	397.17	409.93	422.42	434.90	435.16	435.16	435.16
EBIDTA	1,037.92	1,072.70	1,890.10	2,101.19	2,195.98	2,287.99	2,379.32	2,372.66	2,363.19	2,354.94
Depreciation & Amortization	113.25	113.25	266.06	266.06	266.06	266.06	266.06	266.06	266.06	266.06
EBIT	924.67	959.45	1,624.04	1,835.13	1,929.92	2,021.93	2,113.26	2,106.60	2,097.13	2,088.88
Interest on Term Loan	98.99	18.33	9.17	1.15	(0.00)	(0.00)	(0.00)	(0.00)	-	-
Interest on WC Loan	88.13	90.58	90.61	90.62	90.64	90.67	90.70	90.73	90.77	90.81
Other Interest Expenses	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51	9.51
PBT	728.05	841.03	1,514.75	1,733.86	1,829.76	1,921.75	2,013.05	2,006.35	1,996.85	1,988.56
Tax	130.30	170.49	278.30	357.59	402.38	443.21	481.32	492.60	501.31	508.75

Particular	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
PAT	597.75	670.53	1,236.45	1,376.27	1,427.39	1,478.54	1,531.73	1,513.76	1,495.54	1,479.81

Balance Sheet

INR Million

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
EQUITY AND LIABILITIES											
Shareholders Funds											
(a) Share capital	262.58	4,515.18	4,515.18	4,515.18	4,515.18	4,515.18	4,515.18	4,515.18	4,515.18	4,515.18	4,515.18
(b) Reserves and Surplus	1,468.65	2,066.40	2,736.93	3,973.37	5,349.64	6,777.03	8,255.57	9,787.30	11,301.05	12,796.59	14,276.40
(c) USL	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22
(d) Internal Cash Accruals											
Total Shareholders Fund	1,799.45	6,649.79	7,320.32	8,556.77	9,933.04	11,360.43	12,838.97	14,370.69	15,884.45	17,379.99	18,859.80
Non-Current Liabilities											
(a) Long-term borrowings	945.15	208.33	41.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(b) Deferred Tax liabilities [Net]	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80	136.80
(c) Other non-current Liabilities (Unsecured Loan)	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93	19.93
(d) P&L Reserves	-	-	-	-	-	-	-	-	-	-	-
Total Non-Current Liabilities	1,101.88	365.06	198.39	156.73	156.73	156.73	156.73	156.73	156.73	156.73	156.73
Current Liabilities											
(a) Short Term Borrowings	1,045.47	1,030.73	1,059.43	1,059.82	1,059.84	1,060.16	1,060.49	1,060.81	1,061.20	1,061.59	1,062.11
(b) Trade Payables	377.06	496.42	509.83	1,041.13	1,117.03	1,154.98	1,192.93	1,230.88	1,230.88	1,230.88	1,230.88
(c) Other Current Liabilities	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71	65.71
(d) Deferred Tax Liability	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
(e) Current maturities of TL within 1 year	-	83.33	83.33	41.67	-	-	-	-	-	-	-
Total Current Liabilities	1,495.47	1,683.42	1,725.54	2,215.56	2,249.81	2,288.08	2,326.36	2,364.64	2,365.03	2,365.42	2,365.93

Particular	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
TOTAL [A]	4,39 6.80	8,69 8.28	9,24 4.26	10,9 29.0 6	12,3 39.5 8	13,8 05.2 4	15,3 22.0 5	16,8 92.0 6	18,4 06.2 0	19,9 02.1 3	21,3 82.4 6
ASSETS											
Non-Current Assets											
(a) Property, Plant and Equipment											
(i) Gross Tangible Assets	2,71 0.34	2,41 2.58	2,67 8.53	6,225 .81	6,225 .81	6,225 .81	6,225 .81	6,225 .81	6,225 .81	6,225 .81	6,225 .81
Accum. Depre	294. 10	407. 35	520. 60	786.6 6	1,052 .72	1,318 .78	1,584 .85	1,850 .91	2,116 .97	2,383 .03	2,649 .09
(i) Tangible Assets	2,41 6.24	2,00 5.23	2,15 7.93	5,439 .15	5,173 .09	4,907 .03	4,640 .97	4,374 .91	4,108 .84	3,842 .78	3,576 .72
(ii) Capital work-in-progress	238. 89	1,16 2.54	3,54 7.28	-	-	-	-	-	-	-	-
(b) Non Current Investments	-	-	-	-	-	-	-	-	-	-	-
(c) Long-term loans and advances	35.5 4	35.5 4	35.5 4	35.54	35.54	35.54	35.54	35.54	35.54	35.54	35.54
(d) Other Non Current Assets	-	70.5 1	292. 05	292.0 5	292.0 5	292.0 5	292.0 5	292.0 5	292.0 5	292.0 5	292.0 5
Total Non-Current Assets	2,69 0.67	3,27 3.82	6,03 2.80	5,76 6.74	5,50 0.68	5,23 4.62	4,96 8.56	4,70 2.50	4,43 6.43	4,17 0.37	3,90 4.31
Current Assets											
(a) Inventories	996. 13	1,17 0.50	1,20 2.09	2,442 .75	2,619 .34	2,707 .42	2,795 .46	2,883 .50	2,883 .73	2,883 .92	2,884 .12
(b) Trade Receivables	562. 84	700. 23	720. 32	1,433 .99	1,550 .90	1,604 .48	1,656 .92	1,709 .36	1,710 .93	1,711 .44	1,712 .11
(c) Short-term loans and advances	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
(d) Other Currents Assets	122. 06	122. 06	122. 06	122.0 6	122.0 6	122.0 6	122.0 6	122.0 6	122.0 6	122.0 6	122.0 6
(e) Cash & Cash Equivalents	24.9 5	3,43 1.52	1,16 6.83	1,163 .37	2,546 .45	4,136 .51	5,778 .91	7,474 .49	9,252 .89	11,01 4.19	12,75 9.71
Total Current Assets	1,70 6.13	5,42 4.45	3,21 1.45	5,16 2.32	6,83 8.90	8,57 0.62	10,3 53.4 9	12,1 89.5 6	13,9 69.7 6	15,7 31.7 6	17,4 78.1 5
TOTAL [B]	4,39 6.80	8,69 8.27	9,24 4.26	10,9 29.0 6	12,3 39.5 8	13,8 05.2 4	15,3 22.0 5	16,8 92.0 5	18,4 06.2 0	19,9 02.1 3	21,3 82.4 6

Financial Highlight

Particulars	Unit	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Net Revenue	INR Cr	8,40 2.74	8,64 3.85	17,20 7.86	18,61 0.75	19,25 3.72	19,88 3.03	20,51 2.27	20,53 1.21	20,53 7.27	20,54 5.27
% Growth	%		3%	99%	8%	3%	3%	3%	0%	0%	0%
EBITDA	INR Cr	1,03 7.92	1,07 2.70	1,890 .10	2,101 .19	2,195 .98	2,287 .99	2,379 .32	2,372 .66	2,363 .19	2,354 .94

Particulars	Unit	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
EBITDA Margin	%	12.3 5%	12.4 1%	10.98 %	11.29 %	11.41 %	11.51 %	11.60 %	11.56 %	11.51 %	11.46 %
Net Profit	INR Cr	597. 75	670. 53	1,236 .45	1,376 .27	1,427 .39	1,478 .54	1,531 .73	1,513 .76	1,495 .54	1,479 .81
Net Profit Margin	%	7.11 %	7.76 %	7.19 %	7.40 %	7.41 %	7.44 %	7.47 %	7.37 %	7.28 %	7.20 %
Contribution	INR Cr	1,27 2.12	1,27 2.22	2,328 .38	2,566 .49	2,681 .94	2,794 .74	2,907 .28	2,910 .03	2,910 .18	2,912 .01
Contribution Margin	%	15.1 4%	14.7 2%	13.53 %	13.79 %	13.93 %	14.06 %	14.17 %	14.17 %	14.17 %	14.17 %
Break-Even Sales	INR Cr	3,59 3.78	2,92 9.65	6,013 .15	6,037 .73	6,117 .78	6,210 .87	6,309 .22	6,375 .72	6,445 .37	6,515 .28
Share Capital (Incl. Promoters' Contribution)	INR Cr	4,51 5.18	4,51 5.18	4,515 .18	4,515 .18	4,515 .18	4,515 .18	4,515 .18	4,515 .18	4,515 .18	4,515 .18
Reserves and Surplus	INR Cr	2,06 6.40	2,73 6.93	3,973 .37	5,349 .64	6,777 .03	8,255 .57	9,787 .30	11,30 1.05	12,79 6.59	14,27 6.40
Internal Cash Accruals	INR Cr	-	-	-	-	-	-	-	-	-	-
Total Net Worth (TNW)	INR Cr	6,58 1.57	7,25 2.10	8,488 .55	9,864 .82	11,29 2.21	12,77 0.75	14,30 2.47	15,81 6.23	17,31 1.77	18,79 1.58
USL (quasi equity)	INR Cr	68.2 2	68.2 2	68.22	68.22	68.22	68.22	68.22	68.22	68.22	68.22
TNW + USL (quasi equity)	INR Cr	6,64 9.79	7,32 0.32	8,556 .77	9,933 .04	11,36 0.43	12,83 8.97	14,37 0.69	15,88 4.45	17,37 9.99	18,85 9.80
Secured Loan	INR Cr	291. 67	125. 00	41.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt-Equity Ratio	Rati o	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Outside Liabilities (TOL)	INR Cr	2,04 8.48	1,92 3.94	2,372 .29	2,406 .54	2,444 .81	2,483 .09	2,521 .36	2,521 .75	2,522 .14	2,522 .66
TOL/ TNW	Rati o	0.31	0.26	0.28	0.24	0.22	0.19	0.18	0.16	0.15	0.13
Cash / Bank Balance	INR Cr	3,43 1.52	1,16 6.83	1,163 .37	2,546 .45	4,136 .51	5,778 .91	7,474 .49	9,252 .89	11,01 4.19	12,75 9.71
Min DSCR	Rati o		1.79								
Average DSCR	Rati o		4.68								
IRR	%		33.1 7%								
COC	%		14.7 3%								
Gap between IRR and CoC	%		18.4 3%								

Annexure 4: Connected Load Details

Power Demand Analysis				
Sr. No.	Description	Qty.	Power in KW	
			Single	Total
	I. Cleaning section			
1	Portable belt conveyor	4.00	5.50	22.00
2	Air locker	2.00	2.20	4.40

Power Demand Analysis				
Sr. No.	Description	Qty.	Power in KW	
			Single	Total
3	Dust removal fan	2.00	15.00	30.00
4	250 TPH silo intake and 120TPH unloading and silo blowers		2,216.00	2,216.00
5	Conveying water desander pump	1.00	11.00	11.00
6	Corn feeding pump	1.00	55.00	55.00
7	Feeding water conveyor pump	1.00	22.00	22.00
	2.Corn steeping section			-
1	Circulation pump	12.00	11.00	132.00
2	Thin CSL pump	1.00	15.00	15.00
3	Wet corn transfer pump	1.00	45.00	45.00
4	Recoil water pump	1.00	5.50	5.50
	3.Sulphurous acid section			-
1	Sulphur elevator	1.00	1.10	1.10
2	Feeding conveyor with VFD	1.00	0.55	0.55
3	Tail gas fan	1.00	4.00	4.00
4	Spray tower circulation pump	1.00	4.00	4.00
5	Sulfite intermediate pump	1.00	7.50	7.50
6	Liquid sulphur pump	2.00	1.50	3.00
7	1st air fan	1.00	4.00	4.00
8	2nd air fan	1.00	7.50	7.50
9	Absorption liquid pump	1.00	30.00	30.00
10	Tail gas fan	1.00	4.00	4.00
11	Sulfite pump	1.00	7.50	7.50
12	Process water pump	1.00	7.50	7.50
13	Sulfite heating circulating pump	1.00	7.50	7.50
14	Sulfite acid pump	1.00	11.00	11.00
15	Sulfite acid pump	1.00	18.50	18.50
	4.Crushing section			-
1	Feeder	3.00	2.20	6.60
2	1st degerm mill	3.00	75.00	225.00
3	1st germ cyclone pump	1.00	110.00	110.00
4	2nd degerm mill	2.00	75.00	150.00
5	Agitator	1.00	1.50	1.50
6	2nd germ cyclone pump	1.00	110.00	110.00
7	Emergency pump	1.00	11.00	11.00
8	Concentration measuring pump	1.00	4.00	4.00
9	Water pump for degerm mill	1.00	22.00	22.00
				-
	5. Germ dewatering and packing section			-
1	Agitator	1.00	3.00	3.00
2	Germ transfer pump	1.00	11.00	11.00
3	Germ washing water pump	1.00	11.00	11.00
4	Germ press	2.00	45.00	90.00
5	Germ bundle dryer	2.00	90.00	180.00
6	Air locker	1.00	2.20	2.20
7	Fan	1.00	22.00	22.00
8	Air locker	1.00	1.10	1.10
9	Germ rotary screen	1.00	1.10	1.10
10	Vibration discharger	1.00	0.37	0.37
	6. Pin mill section			-

Power Demand Analysis				
Sr. No.	Description	Qty.	Power in KW	
			Single	Total
1	Pin mill feeding pump	1.00	75.00	75.00
2	Pin mill	3.00	220.00	660.00
3	Liquid pump after pin mill	1.00	75.00	75.00
	7. Fiber screening and washing			-
1	1st fiber washing pump	1.00	55.00	55.00
2	Fiber washing pump	5.00	55.00	275.00
3	Fiber tank	1.00	1.50	1.50
4	Fiber pump	1.00	55.00	55.00
5	Automatically cleaning water pump	1.00	18.50	18.50
				-
	8. Fiber dewatering and drying			-
1	Fiber press	3.00	55.00	165.00
2	Fiber conveyor	3.00	4.00	12.00
3	CSL+fiber mixer	3.00	4.00	12.00
4	Bundle dryer	3.00	132.00	396.00
5	Return screw conveyer 1	3.00	2.20	6.60
6	Return screw conveyer 2	3.00	11.00	33.00
7	Air locker	1.00	3.00	3.00
8	Bin bottom vibrator	1.00	0.37	0.37
9	Air conveyor fan	1.00	37.00	37.00
10	Air locker	1.00	1.10	1.10
11	Crusher	2.00	160.00	320.00
12	Elevator	1.00	3.00	3.00
13	Air locker	1.00	3.00	3.00
14	Air conveyor fan	1.00	37.00	37.00
15	Air locker	1.00	1.10	1.10
16	Bin bottom vibrator	1.00	0.37	0.37
17	Belt conveyor	1.00	1.10	1.10
18	Robotic palletizer	1.00	3.00	3.00
19	Vibrating chain conveyor	1.00	1.10	1.10
20	Air locker	1.00	1.10	1.10
21	Dust removal fan	1.00	7.50	7.50
	9. Starch separation section			-
1	Crude starch milk tank	1.00	2.20	2.20
2	Feeding pump	1.00	55.00	55.00
4	Rotary filter	1.00	0.55	0.55
5	Main separator	1.00	250.00	250.00
6	Main separator oil station	1.00	2.20	2.20
	10. Gluten concentration section			
1	Thin gluten tank	1.00	2.20	2.20
2	Thickener feeding pump	1.00	37.00	37.00
3	Rotary filter	1.00	0.55	0.55
4	Gluten thickener	1.00	220.00	220.00
5	Thickener oil station	1.00	2.20	2.20
6	Heavy liquid diverter tank	1.00	2.20	2.20
7	Thick gluten tank	1.00	2.20	2.20
8	Thick gluten circulating pump	1.00	7.50	7.50
9	Thick gluten filter pump	1.00	15.00	15.00
10	Thick gluten filter pump	1.00	11.00	11.00
11	Thickener light liquid tank	1.00	2.20	2.20
12	Thickener light liquid pump	1.00	30.00	30.00

Power Demand Analysis				
Sr. No.	Description	Qty.	Power in KW	
			Single	Total
				-
	11. Clarification			-
1	Clarifier light liquid pump	1.00	22.00	22.00
2	Clarifier feeding tank	1.00	2.20	2.20
3	Clarifier feeding pump	1.00	37.00	37.00
4	Filter	1.00	0.55	0.55
5	Clarifier	1.00	250.00	250.00
6	Clarifier oil station	1.00	2.20	2.20
7	Heavy liquid diverter tank	1.00	2.20	2.20
	12. Starch washing			-
1	Crude starch milk tank	1.00	2.20	2.20
2	Agitator	1.00	3.00	3.00
3	12-stage feeding pump	1.00	37.00	37.00
4	Rotary filter	1.00	0.55	0.55
5	Helical flow pump	12.00	90.00	1,080.00
6	Starch washing water pump	1.00	18.50	18.50
7	Rotary filter	1.00	0.55	0.55
8	Over flow diverter tank	1.00	2.20	2.20
9	Refined starch milk tank	2.00	2.20	4.40
10	Agitator	2.00	3.00	6.00
11	Refined starch milk pump	1.00	15.00	15.00
12	Thin alkali preparation tank	1.00	2.20	2.20
13	Agitator	1.00	1.10	1.10
14	Thin alkali tank	1.00	2.20	2.20
15	Alkali metering pump	1.00	0.45	0.45
	13. Starch dewatering			
1	Starch milk receiving tank	1.00	2.20	2.20
2	Agitator	1.00	3.00	3.00
3	Starch milk pump	2.00	5.50	11.00
4	High level starch milk tank	2.00	2.20	4.40
5	High level backwash tank	6.00	2.20	13.20
6	Peeler centrifuge	6.00	135.00	810.00
7	Peeler centrifuge oil station	6.00	5.10	30.60
8	Wet powder screw channel	2.00	18.50	37.00
9	Dewatering water return tank	1.00	2.20	2.20
10	Agitator	1.00	3.00	3.00
11	Water return pump	2.00	4.00	8.00
	14. Starch drying section			
1	Mixing tank feeding channel	3.00	22.00	66.00
2	Mixing tank agitator	3.00	11.00	33.00
3	Elevator	3.00	45.00	135.00
4	Screw channel	6.00	11.00	66.00
5	Air locker	6.00	3.00	18.00
6	Moisture detection feeding	3.00	1.50	4.50
7	Moisture detection discharge conveyor	3.00	1.50	4.50
8	Induced draft fan	3.00	355.00	1,065.00
9	Air locker	3.00	2.20	6.60
10	Air locker	3.00	1.10	3.30
11	Air conveyor fan	3.00	55.00	165.00
12	Starch sieve	6.00	2.20	13.20
13	Coarse powder crusher	1.00	5.50	5.50

Power Demand Analysis				
Sr. No.	Description	Qty.	Power in KW	
			Single	Total
14	Coarse powder swinging sieve	1.00	1.10	1.10
15	Coarse powder slag screw channel	1.00	2.20	2.20
16	Air locker	1.00	0.75	0.75
17	Conveyor	1.00	5.50	5.50
	15.Starch packing section			-
1	Bin bottom vibrator	2.00	0.37	0.74
2	Belt conveyor	4.00	1.50	6.00
3	Vibrating chain conveyor	2.00	2.20	4.40
4	Air locker	1.00	1.10	1.10
5	Starch packaging dust removal fan	1.00	7.50	7.50
	16.Protein dewatering and drying			
1	Diaphragm plate frame filter press	5.00	17.50	87.50
2	Double screw conveyor	1.00	7.50	7.50
3	Protein bundle dryer	1.00	75.00	75.00
4	Return spiral channel 1	1.00	5.50	5.50
5	Return spiral channel 2	1.00	7.50	7.50
6	Protein powder cylinder screen	1.00	2.20	2.20
7	Small particle crusher	1.00	45.00	45.00
8	Large particle crusher	1.00	22.00	22.00
9	Large particle conveyer	1.00	2.20	2.20
10	Air locker	1.00	2.20	2.20
11	Air locker	1.00	1.10	1.10
12	Induced draft fan	1.00	22.00	22.00
13	Bin bottom vibrator	2.00	0.37	0.74
14	Protein packing scale	1.00	4.80	4.80
15	Belt conveyor	1.00	1.10	1.10
16	Vibrating chain conveyor	1.00	1.50	1.50
17	Protein press filtrate pump	1.00	4.00	4.00
18	Filter cloth washing pump	1.00	4.00	4.00
19	Cloth washer	1.00	5.50	5.50
	17. CSL evaporation section			-
1	High temperature washing absorption circulating pump	1.00	45.00	45.00
2	Flash circulating pump	1.00	45.00	45.00
3	Low temperature washing absorption circulating pump	1.00	37.00	37.00
4	CSL evaporation feeding pump	1.00	7.50	7.50
5	First effect circulating pump	1.00	55.00	55.00
6	Second effect circulating pump	1.00	45.00	45.00
7	Third effect circulating pump	1.00	45.00	45.00
8	Condensate pump	1.00	15.00	15.00
9	Vacuum pump	1.00	37.00	37.00
10	Waste heat fan	1.00	220.00	220.00
11	Waste heat 2nd fan	1.00	75.00	75.00
12	CIP cleaning pump	1.00	15.00	15.00
13	Cooling tower	2.00	30.00	60.00
14	Cooling tower circulating pump	4.00	37.00	148.00
15	Thick CSL pump	1.00	7.50	7.50
16	CSL tank	2.00		-
17	CSL pump	1.00	7.50	7.50
18	CSL spraying pump	1.00	4.00	4.00

Power Demand Analysis				
Sr. No.	Description	Qty.	Power in KW	
			Single	Total
				-
	20.Utilities			-
4	Seal water pump	2.00	3.00	6.00
7	High temperature condensate pump	1.00	7.50	7.50
9	Medium temperature condensate pump	1.00	7.50	7.50
10	Condensate cooling tower	1.00	11.00	11.00
12	Tail gas fan	1.00	45.00	45.00
13	Tail gas fan	1.00	75.00	75.00
16	Circulating washing pump	1.00	15.00	15.00
19	Circulating washing pump	1.00	11.00	11.00
21	Liquid alkali dosing pump	2.00	0.25	0.50
23	Sewage pump	1.00	7.50	7.50
24	Atlas screw air compressor	2.00	110.00	220.00
26	Refrigerated air dryer	1.00	3.30	3.30
29	Atlas screw air compressor	1.00	55.00	55.00
Total installed power, kW				12,203.89
Source: PBL				

LIMITING CONDITIONS

The revenue and cost estimates for the proposed project are given on the basis of assumptions and not on the basis of actual calculations. The revenue and costs considered are based on the findings from primary survey and secondary research, as detailed in the methodology section. There may be changes in the revenue and cost estimates depending on the market conditions. The revenue and costs are comparable to the industry benchmarks.

BASIS:

D&B-India's assumptions are based on the information obtained from owners, prevailing rules and regulations of statutory authorities, prevailing site conditions on the date of inspection.

DOCUMENTATION:

D&B-India does not normally read leases or documents of title. D&B-India assumes, unless informed to the contrary, that each Structure has good and marketable title, that all documentation are satisfactorily drawn and that there are no encumbrances, restrictions, easements or other outgoing of an onerous nature which would have a material effect on the value of interest under consideration, nor material litigation pending. Where D&B-India has been provided with documentation, D&B-India recommends that reliance should not be placed on its interpretation without verification by legal advisors.

TOWN PLANNING AND OTHER STATUTORY REGULATIONS:

D&B-India recommends that verification be obtained from legal advisors to the effect that:

- i The position is correctly stated in the report.
- ii The property is not adversely affected by any other decision made, or conditions prescribed by public authorities.
- iii There are no outstanding statutory notices.
- iv. D&B-India's reports are prepared on the basis that the Owners comply with all relevant statutory regulations, including enactment relating to fire regulations, safety and environmental considerations and stipulation of respective statutory provisions.

PHYSICAL SURVEYS:

D&B-India has not carried out Physical Survey and leveling exercise of the Structures and advice Owners to carry out actual Physical Survey of the site along with levels if desired. This report is based on documents forwarded to D&B-India by Owners, Government Records made available to D&B-India and on D&B-India's cursory inspection of site.

STRUCTURAL SURVEYS:

D&B-India has not carried out a structural survey, nor has D&B-India tested the services of the Owners and D&B-India therefore does not give any assurance that any Structure or the immovable assets are free from defects. In D&B-India's general observations, the Structures are erected normally and appear to have been maintained properly. However, no guarantee or opinion can be inferred about the conditions of Structure and Machinery about safe working of the same.

DELETERIOUS MATERIALS:

D&B-India does not normally carry out investigations on site to ascertain whether any Structure was constructed or altered using deleterious materials or techniques (including, by way of example high alumina cement concrete, wood wool as permanent shuttering, calcium chloride or asbestos). Unless D&B-India was otherwise informed, our report is on the basis that no such materials or techniques have been used.

SITE CONDITIONS:

D&B-India has not carried out investigations on site in order to determine the suitability of ground conditions and services for the purposes for which they are, or are intended to be put, to use, nor does D&B-India undertake archaeological, ecological or environmental surveys. Unless D&B-India is otherwise informed, D&B-India's report is on the basis that these aspects are satisfactory and that, where development is contemplated, no extraordinary expenses or delays will be incurred during the construction period due to these or any other matters related to site.

ENVIRONMENTAL CONTAMINATION:

D&B-India has not carried out physical site surveys or environmental assessments, or investigated historical records, to establish whether any land or premises are, or have been, contaminated. Therefore, unless advised to the contrary, D&B-India's report is carried out on the basis that properties are not affected by environmental contamination.

Terms relating to use of this report

This Techno Economic Viability Report – Paramesu Biotech Limited (hereinafter referred to as this “Report”) has been prepared by *Dun & Bradstreet Information Services India Private Limited* (hereinafter referred to as “D&B-India”) in respect of proposed 1200 TPD maize processing unit at MPIDC Mohasa-Babai, Dist. Narmadapuram, Madhya Pradesh (hereinafter referred to as the “Transaction”) of M/s. Paramesu Biotech Limited (hereinafter referred to as the “Customer”) for the internal use and reference of the Customer’s funding entity (hereinafter referred to as the “Funding Entity”) subject to what is stated hereinafter and the same forms an integral part of this Report.

The use of this Report or dissemination of contents hereof in part or full, is meant only for the purposes of the Transaction or matters relating thereto as deemed necessary by the Funding Entity, and not by any other party or for any other purpose.

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This Report has been prepared keeping in view the scope of work and the methodology as stated in this Report. Sources which form the basis of this Report could be broadly classified into two categories: (i) the facts gathered by D&B-India by way of a visit to the site of the project relating to the Transaction, or the government offices, to the extent possible, having regard to practical constraints, and (ii) documents and information as furnished by the Customer or the Funding Entity. D&B-India has not carried out any independent verification for the accuracy or the truthfulness of such information which is believed to be accurate, updated and complete based on the information as furnished by the Customer, the Funding Entity and partly on its own information as stated hereinabove. Accordingly, the said information is not warranted by D&B-India for its accuracy, completeness, or being upto date, and is subject to further verification.

This Report includes assessment and projections made by D&B-India which are based on the aforesaid sources and the methodology as adopted by D&B-India. A variation in such assessment and projections is possible due to changes in the obtaining facts and circumstances as they existed at the point of time this Report was finalised by D&B-India and the approach or methodology adopted in respect thereof. Differences between projected and actual results are possible as events and circumstances, as anticipated or contemplated, may or may not occur and such differences may be material in nature. Under the circumstances, no assurance can be provided or implied that these projections will actually materialize.

Therefore, such assessment and projections made, and views based thereon included in this Report should not be treated as the sole decisive factor for any decision to be taken by the Funding Entity relating to the Transaction, and the Funding Entity has to draw its own conclusions on making independent enquiries and verifications and D&B-India cannot be held liable for any financial loss incurred by anyone based on this Report.

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The Report should be read as a whole so as to avoid any divergence with respect to the inferences on account of a partial reading of this Report where such inferences may be based on the entirety of this Report. Further, notwithstanding anything to the contrary, liability, if any, and the amount of claim by the Funding Entity in relation thereto against D&B-India or its associates for any inaccuracies in this Report or any cause whatsoever, and regardless of the form of the action in relation to this Report, will at all times be limited to the amount paid by the Customer to D&B-India for this Report.