PROJECT REPORT

Of

ALOEVERA JUICE

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Aloevera Juice**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]

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PROJECT AT A GLANCE

1	Name of the Entreprenuer		xxxxxxxxxx
2	Constitution (legal Status)		xxxxxxxxxx
3	Father / Spouse Name		xxxxxxxxxxxx
4	Unit Address	:	xxxxxxxxxxxxxxxxxxxxxxx
			District : xxxxxxx
			Pin: xxxxxxx State: xxxxxxxxxx
			Mobile xxxxxxx
5	Product and By Product	:	**ALOEVERA JUICE**
6	Name of the project / business activity proposed :		**ALOEVERA JUICE MAKING UNIT**
7	Cost of Project	:	Rs.26.56 Lakhs
8	Means of Finance		
	Term Loan		Rs.18.9 Lakhs
	Own Capital		Rs.2.66 Lakhs
	Working capital		Rs.5 Lakhs
9	Debt Service Coverage Ratio	:	2.27
10	Pay Back Period	:	5 Years
11	Project Implementation Period	:	5-6 Months
12	Break Even Point	:	36%
13	Employment	:	8 Persons
14	Power Requirement	:	40.00 HP
15	Major Raw materials	:	Aloevera Leaves, Calcium hypochlorite,Preservatives, Packing material
16	Estimated Annual Sales Turnover (Max Capacity)	:	124.41 Lakhs
17	Detailed Cost of Project & Means of Finance		

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	19.40
Furniture & Fixtures	1.60
Working Capital	5.56
Total	**26.56**

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.66
Working Capital(Finance)	5.00
Term Loan	18.90
Total	**26.56**

ALOEVERA JUICE

Introduction: Aloe Vera, sometimes described as a “wonder plant,” is a short-stemmed shrub. The aloe vera plant is a succulent plant species from the genus Aloe. It grows abundantly in tropical climates and has been used for centuries as a medicinal plant. Aloe Vera juice is an excellent way to keep your liver healthy. That's because the liver functions best when the body is adequately nourished and hydrated. Aloe vera juice is ideal for the liver because it's hydrating and rich in phytonutrients. Aloe Vera contains two hormones: Auxin and Gibberellins. These two hormones provide wound healing and anti-inflammatory properties that reduce skin inflammation. Aloe is soothing and can reduce skin inflammations, blistering and itchiness while helping the skin to heal more rapidly.

Uses & Market Potential: India aloe vera market stood at $ 23.72 million in 2017 and is projected to grow at a CAGR of over 10.02%, in value

terms, during 2019-2024, to reach $ 38.68 million by 2024. Rising number of health-conscious consumers, rapidly growing middle class with increasing disposable income, elevating hygiene standards and expanding working population due to which the consumers are compelled to make a steady shift to natural products, are aiding India aloe vera juice market. Moreover, increasing disposable income along with changing lifestyle and awareness regarding the consumption of a balanced and healthy diet to reduce life style diseases are some of the other factors expected to propel demand for aloe vera juice over the next five years.

Raw material: Major raw materials are as follows:

1. Aloe vera Leaves
2. Calcium Hypochlorite
3. Preservatives in permitted quantities
4. Packing materials

Machine Requirements: Major machines & equipments are as follows:

S No.	Machine	Unit	Price
1	Aloe Vera leaves washing unit	1	250000
2	Ultrasound sterilizer	1	250000
3	Aloe Leaf pulp removing machine (Capacity 125 kg per hr.)	1	300000
4	Juicer (Capacity 125 kg pulp per hr.)	1	40000
5	Mixing Tank (Capacity 500 ltr.)	1	175000
6	Homogenizer	1	150000
7	Filter	1	150000
8	Bottle filling machine	1	160000
9	Conveyor	1	150000
10	Storage Tank (Capacity 500 ltr.)	2	200000
11	Table for cutting leaves	1	100000
12	Other equipments & hand tools	Ls	15000
	Total Amount		**1940000**

Manufacturing Process: The fresh harvested aloe Vera leaves are procured from the local farmer. The timing of the process is important part as leaves show losses of biological activity;beginning at six hours following harvest when the leaves are stored atambient temperature. In the first step, the leaves are fed into washing unit to remove dirt, farm yard waste, aloin content from the leaves. This is a 4 stage washing process.

At first stage, water is filled inside steel tanks from pump and leaves are allowed to soak the water for 90 minutes. Along with the soaking in water dirt is removed by brush from the surface of leaves manually by hand or brush. In second stage, the leaves are fed into wash tank filled with mineral water. The mineral water used for cleaning is UV filtered and ozone treated. Calcium hypochlorite is also added in the water of about 0.1 % w/v for disinfection. All the leaves were carefully observed and any infected or damaged leaves were immediately discarded at this stage.

At first stage, water is filled inside steel tanks from pump and leaves are allowed to soak the water for 90 minutes. Along with the soaking in water dirt is removed by brush from the surface of leaves manually by hand or brush. In second stage, the leaves are fed into wash tank filled with mineral water. The mineral water used for cleaning is UV filtered and ozone treated. Calcium hypochlorite is also added in the water of about 0.1 % w/v for disinfection. All the leaves were carefully observed and any infected or damaged leaves were immediately discarded at this stage.

After this, the sides of the leaves are cut by ½ inch manually using knives.In the next step, Aloe vera leaves are fed into Aloe Vera leaf extractor to remove the upper and lower layer of the leaves to produce fresh gel.After this, the fresh gel is fed into juicer to that grinds the gel to produce juice. The juice obtained is fed into storage tanks through pumps.

In the next step, the juice is heated to 50 -70 ℃ temperature and pectolytic enzyme is added into the juice in an amount of 0.06 % w/v. Second class preservatives are also added at this stage. Heating is done for 20 – 25 minutes. After this, the Aloe Vera juice is stored in tank for 12 hours to reduce the viscosity of the juice. After this, juice is filtered to remove foreign materials.

In the next step, juice bottles are washed using heated mineral water and dried properly. The juice is filled inside the bottle using juice filling machine in desired quantity. After this, the bottles are packed and dispatched as per required quantity.

Area: The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500 to 2000Sqft.

Power Requirement: The power consumption required to run all the machinery could be approximated as 40 Hp

Manpower Requirement: There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 8 including 1 Supervisor, 1 Plant operator, 1 unskilled worker, 1 Helper and 1 Security guard. 3 Skilled worker including Accountant, Manager and Sales person.

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)

- Choice of a Brand Name of the product and secure the name with Trademark if require.
- NOC from State Pollution Control Board
- FSSAI Licence

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	4.69	7.34	11.10	15.39
Add: Additions	2.66	-	-	-	-
Add: Net Profit	3.03	4.15	7.76	10.29	13.88
Less: Drawings	1.00	1.50	4.00	6.00	9.00
Closing Balance	4.69	7.34	11.10	15.39	20.26
CC Limit	5.00	5.00	5.00	5.00	5.00
Term Loan	16.80	12.60	8.40	4.20	0.00
Sundry Creditors	1.32	1.50	1.61	1.73	1.84
TOTAL :	**27.80**	**26.44**	**26.11**	**26.31**	**27.11**
APPLICATION OF FUND					
Fixed Assets (Gross)	21.00	21.00	21.00	21.00	21.00
Gross Dep.	3.07	5.69	7.92	9.82	11.45
Net Fixed Assets	17.93	15.31	13.08	11.18	9.55
Current Assets					
Sundry Debtors	1.76	2.08	2.34	2.62	2.90
Stock in Hand	6.19	7.02	7.74	8.48	9.25
Cash and Bank	1.93	2.02	2.95	4.04	5.40
TOTAL :	**27.80**	**26.44**	**26.11**	**26.31**	**27.11**

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PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	75.24	89.36	100.44	112.13	124.41
Total (A)	**75.24**	**89.36**	**100.44**	**112.13**	**124.41**
B) COST OF SALES					
Raw Material Consumed	56.41	64.17	69.10	74.04	78.98
Elecricity Expenses	3.55	3.84	4.14	4.43	4.73
Repair & Maintenance	0.75	1.79	2.01	3.36	3.73
Labour & Wages	4.79	4.84	5.27	5.80	6.38
Depreciation	3.07	2.62	2.23	1.90	1.62
Cost of Production	68.57	77.25	82.75	89.54	95.44
Add: Opening Stock /WIP	-	3.37	3.81	4.28	4.78
Less: Closing Stock /WIP	3.37	3.81	4.28	4.78	5.30
Cost of Sales (B)	65.20	76.80	82.28	89.04	94.92
C) GROSS PROFIT (A-B)	10.04	12.55	18.16	23.08	29.49
	13.34%	**14.05%**	**18.08%**	**20.59%**	**23.71%**
D) Bank Interest (Term Loan)	2.05	1.67	1.21	0.75	0.29
ii) Interest On Working Capital	0.55	0.55	0.55	0.55	0.55
E) Salary to Staff	3.65	4.38	5.26	6.31	7.58
F) Selling & Adm Expenses Exp.	0.75	1.79	2.01	3.36	3.73
TOTAL (D+E)	**7.01**	**8.40**	**9.03**	**10.98**	**12.15**
H) NET PROFIT	3.03	4.15	9.13	12.11	17.35
	4.0%	**4.6%**	**9.1%**	**10.8%**	**13.9%**
I) Taxation	-	-	1.37	1.82	3.47
J) PROFIT (After Tax)	3.03	4.15	7.76	10.29	13.88

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	2.66	-			
Reserve & Surplus	3.03	4.15	9.13	12.11	17.35
Depriciation & Exp. W/off	3.07	2.62	2.23	1.90	1.62
Increase In Cash Credit	5.00				
Increase In Term Loan	18.90	-	-	-	-
Increase in Creditors	1.32	0.18	0.12	0.12	0.12
TOTAL :	**33.97**	**6.95**	**11.47**	**14.12**	**19.09**
APPLICATION OF FUND					
Increase in Fixed Assets	21.00	-	-	-	-
Increase in Stock	6.19	0.83	0.72	0.74	0.77
Increase in Debtors	1.76	0.33	0.26	0.27	0.29
Repayment of Term Loan	2.10	4.20	4.20	4.20	4.20
Taxation	-	-	1.37	1.82	3.47
Drawings	1.00	1.50	4.00	6.00	9.00
TOTAL :	**32.04**	**6.86**	**10.55**	**13.03**	**17.73**
Opening Cash & Bank Balance	-	1.93	2.02	2.95	4.04
Add : Surplus	1.93	0.09	0.93	1.09	1.36
Closing Cash & Bank Balance	**1.93**	**2.02**	**2.95**	**4.04**	**5.40**

COMPUTATION OF MAKING OF ALOEVERA JUICE			
Item to be Manufactured Aloevera Juice			
Manufacturing Capacity per day		400	Ltr
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		1,20,000	Ltr
Total Production per Annum		1,20,000	Ltr
Year		Capacity Utilisation	ALOEVERA JUICE
I		60%	72,000.00
II		65%	78,000.00
III		70%	84,000.00
IV		75%	90,000.00
V		80%	96,000.00

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Unit	Unit Rate of	Total CostPer Annum (100%)
Aloevera Leaves		350.00	Tonne	20,000.00	70,00,000.00
Calcium Hypochlorite		1,800.00	Kg	140.00	2,52,000.00
Packing material(Bottles of 500 ml)		2,00,000.00	Pcs	10.00	20,00,000.00
Preservatives		Lumsum			1,50,000.00
Total					**94,02,000.00**
Total Raw material in Rs lacs					94.02

Raw Material Consumed	Capacity Utilisation		Amount (Rs.)		
I	60%		56.41		
II	65%		64.17	5% Increase in Cost	
III	70%		69.10	5% Increase in Cost	
IV	75%		74.04	5% Increase in Cost	
V	80%		78.98	5% Increase in Cost	

COMPUTATION OF SALE					
Particulars	**I**	**II**	**III**	**IV**	**V**
Op Stock	-	3,600.00	3,900.00	4,200.00	4,500.00
Production	72,000.00	78,000.00	84,000.00	90,000.00	96,000.00
	72,000.00	81,600.00	87,900.00	94,200.00	1,00,500.00
Less : Closing Stock(15 Days)	3,600.00	3,900.00	4,200.00	4,500.00	4,800.00
Net Sale	68,400.00	77,700.00	83,700.00	89,700.00	95,700.00
Sale Price per Bottle	110.00	115.00	120.00	125.00	130.00
Sale (in Lacs)	**75.24**	**89.36**	**100.44**	**112.13**	**124.41**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	I	II	III	IV	V
Finished Goods					
(7 Days requirement)	3.37	3.81	4.28	4.78	5.30
Raw Material					
(15 Days requirement)	2.82	3.21	3.46	3.70	3.95
Closing Stock	**6.19**	**7.02**	**7.74**	**8.48**	**9.25**

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	**Amount**	**Margin(10%)**	**Net Amount**
Stock in Hand	6.19		
Less:			
Sundry Creditors	1.32		
Paid Stock	**4.87**	**0.49**	**4.38**
Sundry Debtors	1.76	0.18	1.58
Working Capital Requirement			**5.96**
Margin			0.66
MPBF			**5.96**
Working Capital Demand			**5.00**

BREAK UP OF LABOUR				
Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		12,000.00	1	12,000.00
Plant Operator		10,000.00	1	10,000.00
Unskilled Worker		6,000.00	1	6,000.00
Helper		4,000.00	1	4,000.00
Security Guard		6,000.00	1	6,000.00
				38,000.00
Add: 5% Fringe Benefit				1,900.00
Total Labour Cost Per Month				39,900.00
Total Labour Cost for the year (In Rs. Lakhs)			5	4.79

BREAK UP OF SALARY				
Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		12,000.00	1	12,000.00
Accountant cum store keeper		9,000.00	1	9,000.00
Sales		8,000.00	1	8,000.00
Total Salary Per Month				29,000.00
Add: 5% Fringe Benefit				1,450.00
Total Salary for the month				30,450.00
Total Salary for the year (In Rs. Lakhs)			3	3.65

COMPUTATION OF DEPRECIATION				
Description	Land	Plant & Machinery	Furniture	**TOTAL**
Rate of Depreciation		**15.00%**	**10.00%**	
Opening Balance	Leased	-	-	-
Addition	-	19.40	1.60	21.00
	-	19.40	1.60	21.00
		-	-	
TOTAL		19.40	1.60	21.00
Less : Depreciation	-	2.91	0.16	3.07
WDV at end of Ist year	-	16.49	1.44	17.93
Additions During The Year	-	-	-	-
	-	16.49	1.44	17.93
Less : Depreciation	-	2.47	0.14	2.62
WDV at end of IInd Year	-	14.02	1.30	15.31
Additions During The Year	-	-	-	-
	-	14.02	1.30	15.31
Less : Depreciation	-	2.10	0.13	2.23
WDV at end of IIIrd year	-	11.91	1.17	13.08
Additions During The Year	-	-	-	-
	-	11.91	1.17	13.08
Less : Depreciation	-	1.79	0.12	1.90
WDV at end of IV year	-	10.13	1.05	11.18
Additions During The Year	-	-	-	-
	-	10.13	1.05	11.18
Less : Depreciation	-	1.52	0.10	1.62
WDV at end of Vth year	-	8.61	0.94	9.55

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Cl Balance**
I	Opening Balance						
	Ist Quarter	-	18.90	18.90	0.52	-	18.90
	Iind Quarter	18.90	-	18.90	0.52	-	18.90
	IIIrd Quarter	18.90	-	18.90	0.52	1.05	17.85
	Ivth Quarter	17.85	-	17.85	0.49	1.05	16.80
					2.05	2.10	
II	Opening Balance						
	Ist Quarter	16.80	-	16.80	0.46	1.05	15.75
	Iind Quarter	15.75	-	15.75	0.43	1.05	14.70
	IIIrd Quarter	14.70	-	14.70	0.40	1.05	13.65
	Ivth Quarter	13.65		13.65	0.38	1.05	12.60
					1.67	4.20	
III	Opening Balance						
	Ist Quarter	12.60	-	12.60	0.35	1.05	11.55
	Iind Quarter	11.55	-	11.55	0.32	1.05	10.50
	IIIrd Quarter	10.50	-	10.50	0.29	1.05	9.45
	Ivth Quarter	9.45		9.45	0.26	1.05	8.40
					1.21	4.20	
IV	Opening Balance						
	Ist Quarter	8.40	-	8.40	0.23	1.05	7.35
	Iind Quarter	7.35	-	7.35	0.20	1.05	6.30
	IIIrd Quarter	6.30	-	6.30	0.17	1.05	5.25
	Ivth Quarter	5.25		5.25	0.14	1.05	4.20
					0.75	4.20	
V	Opening Balance						
	Ist Quarter	4.20	-	4.20	0.12	1.05	3.15
	Iind Quarter	3.15	-	3.15	0.09	1.05	2.10
	IIIrd Quarter	2.10	-	2.10	0.06	1.05	1.05
	Ivth Quarter	1.05		1.05	0.03	1.05	- 0.00
					0.29	4.20	

Door to Door Period	60	Months
Moratorium Period	6	Months
Repayment Period	54	Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
CASH ACCRUALS	6.10	6.77	9.99	12.19	15.50
Interest on Term Loan	2.05	1.67	1.21	0.75	0.29
Total	8.15	8.45	11.20	12.94	15.79
REPAYMENT					
Repayment of Term Loan	2.10	4.20	4.20	4.20	4.20
Interest on Term Loan	2.05	1.67	1.21	0.75	0.29
Total	4.15	5.87	5.41	4.95	4.49
DEBT SERVICE COVERAGE RATIO	**1.96**	**1.44**	**2.07**	**2.61**	**3.52**
AVERAGE D.S.C.R.			**2.27**		

COMPUTATION OF ELECTRICITY				
(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	40	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				5,37,120.00
Add : Minimim Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			**0.54**	
Total cost of Power & Fuel at 100%				5.91
Year		**Capacity**		**Amount**
				(in Lacs)
I		60%		3.55
II		65%		3.84
III		70%		4.14
IV		75%		4.43
V		80%		4.73

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