



MODEL PROJECT REPORT



PROJECT REPORT ON CHLORINE TABLETS

SWAVALAMBI BHARAT ABHIYAN

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INTRODUCTION:

The Government of India, under its technology mission program is giving priority to making available potable drinking water in all parts of the country. Majority of diseases has their root in polluted drinking water. Therefore, it is a major task to disinfect water before it is made available for drinking purposes. Chlorine tablets are extremely useful for disinfecting drinking water. Government is promoting many small scale entrepreneurs to take up manufacturing of chlorine tablets

MARKET POTENTIAL

There is a greater emphasis on providing potable drinking water. If the needs of rural masses for clean drinking water are to be met, many units will have to be set up in small scale sector to manufacture chlorine tablets, which is one of the best and low cost disinfectant. Government is encouraging entrepreneurs to take up this activity in big way. Therefore, many small-scale units can be started at different locations. The tablets can be sold to bulk buyers or to individuals.

BASIS AND PRESUMPTIONS:

The unit will work for 8 hours a day for 300 working hours. The unit will utilise 60% of the installed capacity production per annum with 10% increase per annum

IMPLEMENTATION SCHEDULE:

The unit can be set up in 6 months time

TECHNICAL ASPECTS:**Process of Manufacturing :**

The National Environmental engineering Research Institute at Nagpur has developed a simple process for manufacturing chlorine tablets. Stable bleaching powder sodium carbonate, common salt and chalk powders in proportion are mixed in sigma mixer. After allowing the mass to settle for some time, it is taken to tablet machine. Number packs the tablets in plastic containers. Finally the label giving details of batch no. date of expiry etc. Is fixed and the bottles are supplied to market. As the tablets are corrosive, adequate protection is necessary for the workers by providing hand gloves etc.

Quality Specification:

As per customers specification

Production Capacity per annum

Quantity: 60lac tablets

Motive Power: 3 HP**FINANCIAL ASPECT:**

PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : XXXXXXX
- 2 Constitution (legal Status) : XXXXXXX
- 3 Father's/Spouse's Name : XXXXXXX
- 4 Unit Address : XXXXXXX

Taluk/Block: XXXXX
 District : XXXXX
 Pin: XXXXX
 E-Mail : XXXXX
 Mobile : XXXXX

State:
- 5 Product and By Product : **Chlorine Tablet**
- 6 Name of the project / business activity proposed : **Chlorine Tablet**
- 7 Cost of Project : Rs11.30lac
- 8 Means of Finance

Term Loan Rs.7.38 Lacs
 KVIC Margin Money - As per Project Eligibility
 Own Capital Rs.1.13 Lacs
 Working Capital Rs.2.79 Lacs
- 9 Debt Service Coverage Ratio : 5.92
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 6 Months
- 12 Break Even Point : 15%
- 13 Employment : 6 Persons
- 14 Power Requirement : 3.00 HP
- 15 Major Raw materials : **Common Salt Sodium carbonate Bleaching Powder**
- 16 Estimated Annual Sales Turnover : 16.20 Lacs
- 16 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lacs)	
Particulars	Amount
Land	Rented/Owned
Building & Civil Work (1500 Sq Ft)	2.00
Plant & Machinery	5.20
Furniture & Fixtures	0.50
Pre-operative Expenses	0.50
Working Capital Requirement	3.10
Total	11.30

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	1.13
Term Loan	7.38
Workign Capital Finance	2.79
Total	11.30

Beneficiary's Margin Monery **General** **Special**
 (% of Project Cost) 10% 5%

PLANT & MACHINERY

	PARTICULARS	QTY.	RATE	AMOUNT IN RS.
1	Sigma Mixer 3HP Motor 50Kg. Capacity	1	250,000.00	360,000.00
2	Tableting Machine with 3 HP motor	1	125,000.00	125,000.00
3	Weighing scale etc	1	10,000.00	10,000.00
4	Misc. Fixed Assets	LS		25,000.00
				520,000.00

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Share Capital	1.13	-			
Reserve & Surplus	9.57	11.71	14.16	16.55	18.89
Depriciation & Exp. W/off	1.01	0.89	0.77	0.66	0.57
Increase in Cash Credit	2.79	-	-	-	-
Increase In Term Loan	7.38	-	-	-	-
Increase in Creditors	0.10	0.02	0.02	0.02	0.02
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	22.34	12.66	14.98	17.28	19.53
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	7.70	-	-	-	-
Increase in Stock	1.59	0.35	0.28	0.28	0.28
Increase in Debtors	1.62	0.45	0.30	0.30	0.30
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	1.85	1.85	1.85	2.02
Taxation	0.96	1.17	1.42	1.66	1.89
TOTAL :	14.36	4.07	4.11	4.38	4.82
Opening Cash & Bank Balance	-	7.98	16.57	27.44	40.34
Add : Surplus	7.98	8.59	10.87	12.90	14.71
Closing Cash & Bank Balance	7.98	16.57	27.44	40.34	55.05

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	1.13	1.13	1.13	1.13	1.13
Retained Profit	8.61	19.16	31.90	46.80	63.80
Term Loan	7.38	5.54	3.69	1.85 -	0.18
Cash Credit	2.79	2.79	2.79	2.79	2.79
Sundry Creditors	0.10	0.12	0.14	0.15	0.17
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	20.38	29.13	40.08	53.20	68.24
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	7.70	7.70	7.70	7.70	7.70
Gross Dep.	1.01	1.90	2.66	3.33	3.90
Net Fixed Assets	6.70	5.80	5.04	4.37	3.80
Current Assets					
Sundry Debtors	1.62	2.07	2.37	2.67	2.97
Stock in Hand	1.59	1.94	2.21	2.49	2.76
Cash and Bank	7.98	16.57	27.44	40.34	55.05
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	20.38	29.13	40.08	53.20	68.24
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>A) SALES</u>					
Gross Sale	16.20	20.70	23.70	26.70	29.70
Total (A)	16.20	20.70	23.70	26.70	29.70
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	1.46	1.70	1.94	2.19	2.43
Elecricity Expenses	0.26	0.30	0.34	0.39	0.43
Repair & Maintenance	-	0.21	0.24	0.27	0.30
Labour & Wages	1.72	1.89	2.08	2.28	2.51
Depreciation	1.01	0.89	0.77	0.66	0.57
Consumables and Other Expenses	0.81	1.04	1.19	1.34	1.49
Cost of Production	5.25	6.02	6.55	7.12	7.73
Add: Opening Stock /WIP	-	1.44	1.68	1.92	2.16
Less: Closing Stock /WIP	1.44	1.68	1.92	2.16	2.40
Cost of Sales (B)	3.81	5.78	6.31	6.88	7.49
C) GROSS PROFIT (A-B)	12.39	14.92	17.39	19.82	22.21
	77%	72%	73%	74%	75%
D) Bank Interest (Term Loan)	0.64	0.77	0.56	0.34	0.13
Bank Interest (C.C. Limit)	0.28	0.28	0.28	0.28	0.28
E) Salary to Staff	1.58	1.74	1.92	2.11	2.32
F) Selling & Adm Expenses Exp.	0.32	0.41	0.47	0.53	0.59
TOTAL (D+E)	2.82	3.20	3.23	3.27	3.32
H) NET PROFIT	9.57	11.71	14.16	16.55	18.89
I) Taxation	0.96	1.17	1.42	1.66	1.89
J) PROFIT (After Tax)	8.61	10.54	12.74	14.90	17.00

COMPUTATION OF MANUFACTURING OF CHLORINE TABLET**Items to be Manufactured**

Chlorine Tablet

Manufacturing Capacity per day	-	20,000.00	Tablets
	-		
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		6,000,000.00	Tablets
Year		Capacity	MT
		Utilisation	
IST YEAR		60%	3,600,000
IIND YEAR		70%	4,200,000
IIIRD YEAR		80%	4,800,000
IVTH YEAR		90%	5,400,000
VTH YEAR		100%	6,000,000

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Recovery	Unit Rate of	Total Cost Per Annum (100%)
		Kg			
Common Salt	100%	3,120.00	100%	3.00	9,360.00
Sodium carbonate		1,560.00		100.00	156,000.00
Bleaching Powder		3,120.00		15.00	46,800.00
Chalk Powder		7,680.00		4.00	30,720.00
Total (Rounded off in					242,880.00
Annual Consumption cost (In Lacs)					2.43

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	1.46
IIND YEAR	70%	1.70
IIIRD YEAR	80%	1.94
IVTH YEAR	90%	2.19
VTH YEAR	100%	2.43

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>Finished Goods</u>					
(30 Days requirement)	1.44	1.68	1.92	2.16	2.40
<u>Raw Material</u>					
(30Days requirement)	0.15	0.26	0.29	0.33	0.36
Closing Stock	1.59	1.94	2.21	2.49	2.76

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			1.59
Sundry Debtors			1.62
		Total	3.21
Sundry Creditors			0.10
Working Capital Requirement			3.10
Margin			0.31
Working Capital Finance			2.79

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COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	2.00	5.20	0.50	7.70
	-	2.00	5.20	0.50	7.70
Less : Depreciation	-	0.20	0.78	0.03	1.01
WDV at end of Ist year	-	1.80	4.42	0.48	6.70
Additions During The Year	-	-	-	-	-
	-	1.80	4.42	0.48	6.70
Less : Depreciation	-	0.18	0.66	0.05	0.89
WDV at end of IInd Year	-	1.62	3.76	0.43	5.80
Additions During The Year	-	-	-	-	-
	-	1.62	3.76	0.43	5.80
Less : Depreciation	-	0.16	0.56	0.04	0.77
WDV at end of IIIrd year	-	1.46	3.19	0.38	5.04
Additions During The Year	-	-	-	-	-
	-	1.46	3.19	0.38	5.04
Less : Depreciation	-	0.15	0.48	0.04	0.66
WDV at end of IV year	-	1.31	2.71	0.35	4.37
Additions During The Year	-	-	-	-	-
	-	1.31	2.71	0.35	4.37
Less : Depreciation	-	0.13	0.41	0.03	0.57
WDV at end of Vth year	-	1.18	2.31	0.31	3.80

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	7.38	7.38	-	-	7.38
	Iind Quarter	7.38	-	7.38	0.21	-	7.38
	IIIrd Quarter	7.38	-	7.38	0.21	-	7.38
	Ivth Quarter	7.38	-	7.38	0.21	-	7.38
					0.64	-	
IIND YEAR	Opening Balance						
	Ist Quarter	7.38	-	7.38	0.21	0.46	6.92
	Iind Quarter	6.92	-	6.92	0.20	0.46	6.46
	IIIrd Quarter	6.46	-	6.46	0.19	0.46	6.00
	Ivth Quarter	6.00		6.00	0.17	0.46	5.54
					0.77	1.85	
IIIRD YEAR	Opening Balance						
	Ist Quarter	5.54	-	5.54	0.16	0.46	5.07
	Iind Quarter	5.07	-	5.07	0.15	0.46	4.61
	IIIrd Quarter	4.61	-	4.61	0.13	0.46	4.15
	Ivth Quarter	4.15		4.15	0.12	0.46	3.69
					0.56	1.85	
IVTH YEAR	Opening Balance						
	Ist Quarter	3.69	-	3.69	0.11	0.46	3.23
	Iind Quarter	3.23	-	3.23	0.09	0.46	2.77
	IIIrd Quarter	2.77	-	2.77	0.08	0.46	2.31
	Ivth Quarter	2.31		2.31	0.07	0.46	1.85
					0.34	1.85	
VTH YEAR	Opening Balance						
	Ist Quarter	1.85	-	1.85	0.05	0.46	1.38
	Iind Quarter	1.38	-	1.38	0.04	0.46	0.92
	IIIrd Quarter	0.92	-	0.92	0.03	0.55	0.37
	Ivth Quarter	0.37		0.37	0.01	0.55	0.18
					0.13	2.02	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	9.62	11.43	13.51	15.56	17.58
Interest on Term Loan	0.64	0.77	0.56	0.34	0.13
Total	10.25	12.20	14.07	15.90	17.71
<u>REPAYMENT</u>					
Instalment of Term Loan	1.85	1.85	1.85	2.02	2.02
Interest on Term Loan	0.64	0.77	0.56	0.34	0.13
Total	2.48	2.61	2.40	2.37	2.15
DEBT SERVICE COVERAGE RATIO	4.13	4.67	5.86	6.72	8.23
AVERAGE D.S.C.R.			5.92		

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	3.60	4.20	4.80	5.40
Production	36.00	42.00	48.00	54.00	60.00
Tablets in lacs	36.00	45.60	52.20	58.80	65.40
Less : Closing Stock	3.60	4.20	4.80	5.40	6.00
Net Sale	32.40	41.40	47.40	53.40	59.40
Sale Price per MT	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00
Sale (in Lacs)	16.20	20.70	23.70	26.70	29.70

COMPUTATION OF ELECTRICITY**(A) POWER CONNECTION**

Total Working Hour per day	Hours	8	
Electric Load Required	HP	3	
Load Factor		0.7460	
Electricity Charges	per unit	8.00	
Total Working Days		300	
Electricity Charges (8 Hrs Per day)			42,969.60

Add : Minimim Charges (@ 10%)

(B) D.G. SET

No. of Working Days		300	days
No of Working Hours		-	Hour per day
Total no of Hour		-	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		-	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		-	
Add : Lube Cost @15%		-	
Total		-	
Total cost of Power & Fuel at 100%			0.43

Year	Capacity	Amount (in Lacs)
IST YEAR	60%	0.26
IIND YEAR	70%	0.30
IIIRD YEAR	80%	0.34
IVTH YEAR	90%	0.39
VTH YEAR	100%	0.43

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	16.20	20.70	23.70	26.70	29.70
Less : Op. WIP Goods	-	1.44	1.68	1.92	2.16
Add : Cl. WIP Goods	1.44	1.68	1.92	2.16	2.40
Total Sales	17.64	20.94	23.94	26.94	29.94
Variable & Semi Variable Exp.					
Raw Material & Tax	1.46	1.70	1.94	2.19	2.43
Electricity Exp/Coal Consumption at 85%	0.22	0.26	0.29	0.33	0.37
Manufacturing Expenses 80%	0.65	0.99	1.14	1.28	1.43
Wages & Salary at 60%	1.98	2.18	2.40	2.64	2.90
Selling & administrative Expenses 80%	0.26	0.33	0.38	0.43	0.48
Intt. On Working Capital Loan	0.28	0.28	0.28	0.28	0.28
Total Variable & Semi Variable Exp	4.84	5.74	6.43	7.14	7.87
Contribution	12.80	15.20	17.51	19.80	22.07
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.16	0.25	0.28	0.32	0.36
Electricity Exp/Coal Consumption at 15%	0.04	0.05	0.05	0.06	0.06
Wages & Salary at 40%	1.32	1.45	1.60	1.76	1.93
Interest on Term Loan	0.64	0.77	0.56	0.34	0.13
Depreciation	1.01	0.89	0.77	0.66	0.57
Selling & administrative Expenses 20%	0.06	0.08	0.09	0.11	0.12
Total Fixed Expenses	3.23	3.49	3.35	3.25	3.18
Capacity Utilization	60%	70%	80%	90%	100%
OPERATING PROFIT	9.57	11.71	14.16	16.55	18.89
BREAK EVEN POINT	15%	16%	15%	15%	14%
BREAK EVEN SALES	4.45	4.80	4.58	4.42	4.31