

# Note for users

## Draft Business Plan Financial Calculator

### 1.0 About the calculator

The business plan financial calculator will be the tool to generate the financial projection of the business plan based on the certain data inputs. It will be the tool which can be easily used by any professional who understand the basic accounting. The business plan financial calculator will generate following statements automatically based on certain data inputs:

1. Profit and Loss Statement

2. Cash Flow Statement

3. Balance Sheet

4. Depreciation, amortization and tax calculation

It will also auto calculate the following financial ratios to understand the viability of the business plan / Full Project Proposal:

1. Break-Even Point

2. Internal Rate of Return

3. Net Present Value

4. Return on Capital Employed

5. Project Payback Period

6. DSCR

7. Sensitivity analysis

The above ratios will help decision makers for approving the business plan / Full Project Report.

### 2.0 Features

1.0 It helps in preparing financial projections for both type of sub-projects i.e. Grain and Fruits & Vegetables.

2.0 It can be easily used by any person / professional who understand the basic accounting.

3.0 Assist planners to map marketable surplus of key commodities quickly.

3.0 This tool will generate P & L, Cash flow statement and balance sheet automatically.

4.0 The calculator helps to prepare all categories of business plans envisaged in SMART Project viz. PPs, MAPs, CIs, Warehousing related)

5.0 It will also calculate all ratios automatically, that will helps to understand the project feasible or not

### 3.0 Preparatory work

1.0 Please collect basic data of targeted commodities in the cluster accurately (area, productivity and consumption at HH level)

2.0 Finalize Business activity in consultation with CBO members and officials / experts.

3.0 Accordingly, please add CAPEX details i.e. related to building, machinery and other infrastructure properly.

4.0 In CAPEX SHEET, please refer area and rates mentioned in estimates of civil structures prepared by engineer whereas quotation's in case of machinery and other equipment or material.

5.0 Please write down assumptions clearly for each business activity (example- produce aggregation and bulk marketing in the form of % in Y-1, Y-2.....)

### 4.0 Colour codes used

Colour code	Description
	Need to change/Place Values Manually
	Need to change figures subject to

## 5.0 Guidance note for using calculator

Steps	Sheet name	Process	Sheet No	Remark
A	Sheet in which need to enter data			
Step-1	Grain production details & or F & V production details (Marketable surplus)	Please fill data in yellow colour cells i.e. members no, non-members, average area etc.	Sheet No. 10 for grain and 11 for F & V	
Step-2	CAPEX Details	Kindly fill yellow cells by using rates mentioned in estimates of civil structures and quotation's of machineries and equipment's	Sheet No. 2	
Step-3	Project cost and Means of finance with financial indicators	Please add bank loan per cent if applicable other wise put zero	Sheet No. 1	Generate automatically
Step-4	Business activity wise revenue, expenditure and profit calculation			
	4.1 Facility-1 / Business activity- Trading		Sheet No. 12	
	4.2 Facility-2 / Business activity - Processing (Grain, pulses, oilseed)		Sheet No. 13	
	4.3 Facility-3 Business activity -Warehouse	Please fill necessary details in yellow cells for calculating revenue and expenditure of identified business activities only.	Sheet No. 14	
	4.4 Facility-4 Business activity -Custom hiring		Sheet No. 15	
	4.5 Facility-5 Business activity - Agri. Input		Sheet No. 16	
Step-5	Other expenditure and taxes	Please add staff salary and other details in Yellow cell (in 3.1 table only)	Sheet no.3 (Ref. 3.1 table only)	
Step-6	TL repayment schedule	Please add interest rate, tenure and Moratorium Period (in Month) in green cells	Sheet No. 4	
Step-7	Closing stock and working capital	Please add necessary details in yellow and green cells	Sheet No. 5	
B	<b>Auto generating sheets (No need to enter any data)</b>			
	B1	Profit and Loss Statement	Sheet No. 6	Generate automatically
	B2	Cash Flow Statement	Sheet No. 7	Generate automatically
	B3	Balance Sheet	Sheet No. 8	Generate automatically
B4	Financial indicators (IRR, BEP, NPV, ROI, Pay back period, DSCR, sensitivity analysis )		Sheet No.9	Generate automatically
B5	Depreciation, amortization and tax calculation		Sheet No. 3 (3.2 & 3.3)	Generate automatically
Step-8	Copy relevant tables in word file of FPP			

### 1.1 Total Project Cost

Sr. No.	Particular	Amount (Rs.)	Grant (%)	Grant Amount (Rs.)
1	Land and Building	20,501,093	60%	12,300,656
2	Machinery and Equipment	3,147,377	60%	1,888,426
3	Furniture and Fixture	-	60%	-
4	IT & IT Infrastructure	-	60%	-
5	Vehicle	-	60%	-
6	Preliminary Expenses	135,000	60%	81,000
7	Working Capital	323,310		
<b>Total</b>		<b>24,106,781</b>		<b>14,270,082</b>

Total Project Costs means the costs incurred or to be incurred by a FPC in connection with or incidental to the Construction and acquisition of assets including preoprtaiive expenditure , design, construction and Working Capital

### 1.2 Means of Finance

Sr. No.	Particular	Bank Loan (%)	Amount (Rs.)
1	Govt. Grant under SMART Project		14,270,082
2	Bank Finance - Long Term Loan (= Total Project Cost- Smart Grant - Own Contribution)		7,135,041
3	Own Contribution (=Fixed Assets*20%)+ Working Capital )	10%	2,701,657
<b>Total</b>			<b>24,106,781</b>

This sheet provide details of how total project cost will raised

### 1.3 Financial Indicators

Sr. No.	Financial ratio	Estimated	Result	Permissible limit
1	Break Even Point (BEP)	42.94%	Project Viable	BEP shall be less than 60%
2	Avg. Return on Capital Employed Average (ROCE)	18.76%	Project Viable	RoCE for the project shall be more than 12%
3	Internal Rate of Return (IRR)	10.76%	Project Viable	The project internal rate of return shall be more than 10%
4	Net present value (at a discount rate of 10 per cent)	708,971	NPV is high and positive at a conservative project life of 5 years	With a discount rate of 10% and a span of 7 operational years, the NPV should be positive
5	Payback period	5.18	Project Viable	The Pack Back Period (Project/ Equity) shall be less than 7 years
6	Debt Service Coverage Ratio (DSCR)	2.28	Project Viable	DSCR shall be more than 2 for better performing project.

2.1

## Land and Building

Sr. No.	Particular	Unit	No. of Unit	Rate per unit	Amount (Rs.)
1	Land	Sq. ft			Lease
2	Construction of Onion Storage Shed (1000 MT)	Sq. Mtrs	1,861	11,019	20,501,093
Total					20,501,093

This Sheet provide details of land and various construction, including area, rate per unit and total amount

2.2

## Machinery and Equipment

Sr. No.	Description	Capacity	No. Required	Rate	Amount (Rs.)
A	Custom Hiring				
1	Tractor Model 510S of 40 HP		1	900,000	900,000
2	5 Ton, 2 wheel Trailer		1	246,400	246,400
Subtotal					1,146,400
B	Solar				1,146,400
	AV Solar 1 KVA - 220	1 KVA	5	61,800	308,908
	Supply GIS Oil Over kpit digging (labour & Commissioning (Installation		1	4,900	4,153
	GST @ 12%				37,680
	GST @ 18%				747
Subtotal					350,977
D	Weighing Bridge		1		
	80 MT Weighing Bridge		1	1,650,000	1,650,000
Subtotal					1,650,000
Total					3,147,377

This Sheet provide details of Plant & Machinery, including Capacity, rate per machine, Power Consumption and total amount

2.3

## Furniture and Fixture

Sr. No.	Particular	No. Required	Rate	Amount (Rs.)
1				
2				
3		6		
4		1		
5		2		
Total				

This Sheet provide details of furniture and fixture, no. of Quantity, rate per unit and total amount

2.4

## IT &amp; IT Infrastructure

Sr. No.	Particular	No. Required	Rate	Amount (Rs.)
1				
2				
3				
4				







Sr. No.	Particulars	Unit	Rate/Unit	Total Amount	Percentage%
A	Pre-harvest				
1	Custom Hiring	1	1,146,400	1,146,400	4.82%
	Subtotal			1,146,400	
B	Post Harvest				
1	Construction of Onion Storage Shed (1000 MT)	1	20,501,093	20,501,093	
2	Solar	1	350,977	350,977	
3	Weighing Bridge	1	1,650,000	1,650,000	94.61%
4					
	Subtotal			22,502,070	
C	Others				
1	Furniture & Fixture	1	-	-	
2	IT & IT Infrastructure	1	-	-	
3	Preliminary/Preoperative Expenses	1	135,000	135,000	0.57%
	Subtotal			135,000	
	Total*			23,783,470	

\* Excluding Working Capital

24106780.56

323,310



7,135,041	71,350		71,350	7,135,041
7,135,041	71,350		71,350	7,135,041
7,135,041	71,350		71,350	7,135,041
7,135,041	71,350		71,350	7,135,041
7,135,041	71,350		71,350	7,135,041
7,135,041	71,350		71,350	7,135,041
7,044,747	70,447	100,291	171,645	7,044,747
6,953,450	69,534	101,507	171,645	6,953,450
6,862,153	68,611	102,710	171,645	6,862,153
6,770,856	67,688	103,913	171,645	6,770,856
6,679,559	66,765	105,116	171,645	6,679,559
6,588,262	65,842	106,319	171,645	6,588,262
6,496,965	64,919	107,522	171,645	6,496,965
6,405,668	64,000	108,725	171,645	6,405,668
6,314,371	63,081	109,928	171,645	6,314,371
6,223,074	62,162	111,131	171,645	6,223,074
6,131,777	61,243	112,334	171,645	6,131,777
6,040,480	60,324	113,537	171,645	6,040,480
5,949,183	59,405	114,740	171,645	5,949,183
5,857,886	58,486	115,943	171,645	5,857,886
5,766,589	57,567	117,146	171,645	5,766,589
5,675,292	56,648	118,349	171,645	5,675,292
5,584,000	55,729	119,552	171,645	5,584,000
5,492,703	54,810	120,755	171,645	5,492,703
5,401,406	53,891	121,958	171,645	5,401,406
5,310,109	52,972	123,161	171,645	5,310,109
5,218,812	52,053	124,364	171,645	5,218,812
5,127,515	51,134	125,567	171,645	5,127,515
5,036,218	50,215	126,770	171,645	5,036,218
4,944,921	49,296	127,973	171,645	4,944,921
4,853,624	48,377	129,176	171,645	4,853,624
4,762,327	47,458	130,379	171,645	4,762,327
4,671,030	46,539	131,582	171,645	4,671,030
4,579,733	45,620	132,785	171,645	4,579,733
4,488,436	44,701	133,988	171,645	4,488,436
4,397,139	43,782	135,191	171,645	4,397,139
4,305,842	42,863	136,394	171,645	4,305,842
4,214,545	41,944	137,597	171,645	4,214,545
4,123,248	41,025	138,800	171,645	4,123,248
4,031,951	40,106	140,003	171,645	4,031,951
3,940,654	39,187	141,206	171,645	3,940,654
3,849,357	38,268	142,409	171,645	3,849,357
3,758,060	37,349	143,612	171,645	3,758,060
3,666,763	36,430	144,815	171,645	3,666,763
3,575,466	35,511	146,018	171,645	3,575,466
3,484,169	34,592	147,221	171,645	3,484,169
3,392,872	33,673	148,424	171,645	3,392,872
3,301,575	32,754	149,627	171,645	3,301,575
3,210,278	31,835	150,830	171,645	3,210,278
3,118,981	30,916	152,033	171,645	3,118,981
3,027,684	30,000	153,236	171,645	3,027,684
2,936,387	29,081	154,439	171,645	2,936,387
2,845,090	28,162	155,642	171,645	2,845,090
2,753,793	27,243	156,845	171,645	2,753,793
2,662,496	26,324	158,048	171,645	2,662,496
2,571,199	25,405	159,251	171,645	2,571,199
2,479,902	24,486	160,454	171,645	2,479,902
2,388,605	23,567	161,657	171,645	2,388,605
2,297,308	22,648	162,860	171,645	2,297,308
2,206,011	21,729	164,063	171,645	2,206,011
2,114,714	20,810	165,266	171,645	2,114,714
2,023,417	19,891	166,469	171,645	2,023,417
1,932,120	18,972	167,672	171,645	1,932,120
1,840,823	18,053	168,875	171,645	1,840,823
1,749,526	17,134	170,078	171,645	1,749,526
1,658,229	16,215	171,281	171,645	1,658,229
1,566,932	15,296	172,484	171,645	1,566,932
1,475,635	14,377	173,687	171,645	1,475,635
1,384,338	13,458	174,890	171,645	1,384,338
1,293,041	12,539	176,093	171,645	1,293,041
1,201,744	11,620	177,296	171,645	1,201,744
1,110,447	10,701	178,499	171,645	1,110,447
1,019,150	9,782	179,702	171,645	1,019,150
927,853	8,863	180,905	171,645	927,853
836,556	7,944	182,108	171,645	836,556
745,259	7,025	183,311	171,645	745,259
653,962	6,106	184,514	171,645	653,962
562,665	5,187	185,717	171,645	562,665
471,368	4,268	186,920	171,645	471,368
380,071	3,349	188,123	171,645	380,071
288,774	2,430	189,326	171,645	288,774
197,477	1,511	190,529	171,645	197,477
106,180	62	191,732	171,645	106,180
14,883	-117	192,935	171,645	14,883
-76,414	-200	194,138	171,645	-76,414
-167,717	-283	195,341	171,645	-167,717
-259,020	-366	196,544	171,645	-259,020
-350,323	-449	197,747	171,645	-350,323
-441,626	-532	198,950	171,645	-441,626
-532,929	-615	200,153	171,645	-532,929
-624,232	-698	201,356	171,645	-624,232
-715,535	-781	202,559	171,645	-715,535
-806,838	-864	203,762	171,645	-806,838
-898,141	-947	204,965	171,645	-898,141
-989,444	-1,030	206,168	171,645	-989,444
-1,080,747	-1,113	207,371	171,645	-1,080,747
-1,172,050	-1,196	208,574	171,645	-1,172,050
-1,263,353	-1,279	209,777	171,645	-1,263,353
-1,354,656	-1,362	210,980	171,645	-1,354,656
-1,445,959	-1,445	212,183	171,645	-1,445,959
-1,537,262	-1,528	213,386	171,645	-1,537,262
-1,628,565	-1,611	214,589	171,645	-1,628,565
-1,719,868	-1,694	215,792	171,645	-1,719,868
-1,811,171	-1,777	216,995	171,645	-1,811,171
-1,902,474	-1,860	218,198	171,645	-1,902,474
-1,993,777	-1,943	219,401	171,645	-1,993,777
-2,085,080	-2,026	220,604	171,645	-2,085,080
-2,176,383	-2,109	221,807	171,645	-2,176,383
-2,267,686	-2,192	223,010	171,645	-2,267,686
-2,358,989	-2,275	224,213	171,645	-2,358,989
-2,450,292	-2,358	225,416	171,645	-2,450,292
-2,541,595	-2,441	226,619	171,645	-2,541,595
-2,632,898	-2,524	227,822	171,645	-2,632,898
-2,724,201	-2,607	229,025	171,645	-2,724,201
-2,815,504	-2,690	230,228	171,645	-2,815,504
-2,906,807	-2,773	231,431	171,645	-2,906,807
-2,998,110	-2,856	232,634	171,645	-2,998,110
-3,089,413	-2,939	233,837	171,645	-3,089,413
-3,180,716	-3,022	235,040	171,645	-3,180,716
-3,272,019	-3,105	236,243	171,645	-3,272,019
-3,363,322	-3,188	237,446	171,645	-3,363,322
-3,454,625	-3,271	238,649	171,645	-3,454,625
-3,545,928	-3,354	239,852	171,645	-3,545,928
-3,637,231	-3,437	241,055	171,645	-3,637,231
-3,728,534	-3,520	242,258	171,645	-3,728,534
-3,819,837	-3,603	243,461	171,645	-3,819,837
-3,911,140	-3,686	244,664	171,645	-3,911,140
-4,002,443	-3,769	245,867	171,645	-4,002,443
-4,093,746	-3,852	247,070	171,645	-4,093,746
-4,185,049	-3,935	248,273	171,645	-4,185,049
-4,276,352	-4,018	249,476	171,645	-4,276,352
-4,367,655	-4,101	250,679	171,645	-4,367,655
-4,458,958	-4,184	251,882	171,645	-4,458,958
-4,550,261	-4,267	253,085	171,645	-4,550,261
-4,641,564	-4,350	254,288	171,645	-4,641,564
-4,732,867	-4,433	255,491	171,645	-4,732,867
-4,824,170	-4,516	256,694	171,645	-4,824,170
-4,915,473	-4,599	257,897	171,645	-4,915,473
-5,006,776	-4,682	259,100	171,645	-5,006,776
-5,098,079	-4,765	260,303	171,645	-5,098,079
-5,189,382	-4,848	261,506	171,645	-5,189,382
-5,280,685	-4,931	262,709	171,645	-5,280,685
-5,371,988	-5,014	263,912	171,645	-5,371,988
-5,463,291	-5,097	265,115	171,645	-5,463,291
-5,554,594	-5,180	266,318	171,645	-5,554,594
-5,645,897	-5,263	267,521	171,645	-5,645,897
-5,737,200	-5,346	268,724	171,645	-5,737,200
-5,828,503	-5,429	269,927	171,645	-5,828,503
-5,919,806	-5,512	271,130	171,645	-5,919,806
-6,011,109	-5,595	272,333	171,645	-6,011,109
-6,102,412	-5,678	273,536	171,645	-6,102,412
-6,193,715	-5,761	274,739	171,645	-6,193,715
-6,285,018	-5,844	275,942	171,645	-6,285,018
-6,376,321	-5,927	277,145	171,645	-6,376,321
-6,467,624	-6,010	278,348	171,645	-6,467,624
-6,558,927	-6,093	279,551	171,645	-6,558,927
-6,650,230	-6,176	280,754	171,645	-6,650,230
-6,741,533	-6,259	281,957	171,645	-6,741,533
-6,832,836	-6,342	283,160	171,645	-6,832,836
-6,924,139	-6,425	284,363	171,645	-6,924,139
-7,015,442	-6,508	285,566	171,645	-7,015,442
-7,106,745	-6,591	286,769	171,645	-7,106,745
-7,198,048	-6,674	287,972	171,645	-7,198,048
-7,289,351	-6,757	289,175	171,645	-7,289,351
-7,380,654	-6,840	290,378	171,645	-7,380,654
-7,471,957	-6,923	291,581	171,645	-7,471,957
-7,563,260	-7,006	292,784	171,645	-7,563,260
-7,654,563	-7,089	293,987	171,645	-7,654,563
-7,745,866	-7,172	295,190	171,645	-7,745,866
-7,837,169	-7,255	296,393	171,645	-7,837,169
-7,928,472	-7,338	297,596	171,645	-7,928,472
-8,019,775	-7,421	298,799	171,645	-8,019,775
-8,111,078	-7,504	299,002	171,645	-8,111,078
-8,202,381	-7,587	300,205	171,645	-8,202,381
-8,293,684	-7,670	301,408	171,645	-8,293,684
-8,384,987	-7,753	302,611	171,645	-8,384,987
-8,476,290	-7,836	303,814	171,645	-8,476,290
-8,567,593	-7,919	305,017	171,645	-8,567,593
-8,658,896	-8,002	306,220	171,645	-8,658,896
-8,750,199	-8,085	307,423	171,645	-8,750,199
-8,841,502	-8,168	308,626	171,645	-8,841,502
-8,932,805	-8,251	309,829	171,645	-8,932,805
-9,024,108	-8,334	311,032	171,645	-9,024,108
-9,115,411	-8,417	312,235	171,645	-9,115,411
-9,206,714	-8,500	313,438	171,645	-9,206,714
-9,298,017	-8,583	314,641	171,645	

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Need to change figures subject to

### 1.1 Total Project Cost

Sr. No.	Particular	Amount (Rs.)	Grant (%)	Grant Amount (Rs.)
1	Land and Building	20,501,093	60%	12,300,656
2	Machinery and Equipment	3,147,377	60%	1,838,426
3	Furniture and Fixture	-	60%	-
4	IT & It Infrastructure	-	60%	-
5	Vehicle	-	60%	-
6	Preliminary Expenses	135,000	60%	81,000
7	Working Capital	323,310		
	<b>Total</b>	<b>24,106,781</b>		<b>14,270,082</b>

Total Project Costs means the costs incurred or to be incurred by a FPC in connection with or incidental to the Construction and acquisition of assets including preopraitive expenditure , design, construction and Working Capital

### 1.2 Means of Finance

Sr. No.	Particular	Bank Loan (%)	Amount (Rs.)
1	Govt. Grant under SMART Project		14,270,082
2	Bank Finance - Long Term Loan (= Total Project Cost- Smart Grant - Own Contribution)		7,135,041
3	Own Contribution (=Fixed Assets*20%)+Working Capital )	10%	2,701,557
	<b>Total</b>		<b>24,106,781</b>

This sheet provide details of how total project cost will raised

### 1.3 Financial Indicators

Sr. No.	Financial ratio	Estimated	Result	Permissible limit
1	Break Even Point (BEP)	42.94%	Project Viable	BEP shall be less than 60%
2	Avg. Return on Capital Employed Average (ROCE)	18.76%	Project Viable	RoCE for the project shall be more than 12%
3	Internal Rate of Return (IRR)	10.76%	Project Viable	The project internal rate of return shall be more than 10%
4	Net present value (at a discount rate of 10 per cent)	708,971	NPV is high and positive at a conservative project life of 5 years	With a discount rate of 10% and a span of 7 operational years, the NPV should be positive
5	Payback period	5.18	Project Viable	The Pack Back Period (Project/ Equity) shall be less than 7 years
6	Debt Service Coverage Ratio (DSCR)	2.28	Project Viable	DSCR shall be more than 2 for better performing project.





### 9.1 Internal Rate of Return

Particular	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Profit after Tax & Dividend		2,274,685	2,947,702	3,654,244	4,440,743	5,310,921	6,329,058	6,897,697
Add: Depreciation		849,114	849,114	849,114	849,114	849,114	849,114	849,114
Add: Preliminary exp. Written-off		27,000	27,000	27,000	27,000	27,000	27,000	27,000
Net Cash Accrual (A)		3,150,798	3,823,816	4,530,358	5,316,857	6,187,035	7,195,172	7,773,811
Initial Investment - Net Cash Accrual	(24,106,781)							
IRR		20.76%						
Present Value Factor (a)		0.91	0.83	0.74	0.68	0.62	0.56	0.51
Present Value of Future Inflows		2,864,362	3,160,178	3,353,725	3,611,481	3,841,662	4,038,996	4,197,433
Operating Net Cash Inflow					24,106,781			
Present Capital Outflow					24,106,781			

The internal rate of return (IRR) is a ratio used in financial analysis to estimate the profitability of potential investments. IRR is a discount rate that makes the net present value (NPV) of all cash flows equal to zero in a discounted cash flow analysis.

### 9.2 Break even Point

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Factory 1 - Cotton Mill							
Factory 2 - Cotton Ginning	11,763,881	17,362,881	42,801,978	48,698,777	55,699,747	61,959,374	69,460,280
Factory 3 - Cotton Storage, Sorting	1,280,000	1,428,000	1,587,000	1,749,000	1,914,000	2,082,000	2,244,000
Factory 4 - Cotton Ginning							
Factory 5 - Agri. Input Centre							
Factory 6 - Processing Unit - (1000 Cows)							
Total Revenue	33,019,881	38,790,881	44,391,978	61,445,367	67,614,447	74,041,425	71,544,443
Total Variable Exp.	27,284,068	32,024,051	36,653,624	41,663,676	47,082,703	52,936,706	49,292,664
Contribution	5,735,815	6,766,829	7,737,954	8,791,693	9,931,764	11,062,718	12,281,939
Total Fixed exp.	3,985,216	3,781,189	3,611,876	3,475,812	3,363,986	3,252,786	3,191,944
BEP	69%	66%	47%	40%	34%	29%	26%

Average BEP

42.94%

Break-even point (BEP) is a term in accounting that refers to the situation where a company's revenues and expenses were equal within a specific period. It means that there were no net profits or no net losses for the company. The main purpose of break-even analysis is to determine the minimum output that must be exceeded for a business to profit.

### 9.3 Net Present Value

Particular	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Profit after Tax & Dividend	2,274,685	2,947,702	3,654,244	4,440,743	5,310,921	6,329,058	6,897,697
Add: Depreciation	849,114	849,114	849,114	849,114	849,114	849,114	849,114
Add: Preliminary exp. Written-off	27,000	27,000	27,000	27,000	27,000	27,000	27,000
Net Cash Accrual (A)	3,150,798	3,823,816	4,530,358	5,316,857	6,187,035	7,195,172	7,773,811
PV Factor @ 10 %	0.91	0.83	0.74	0.68	0.62	0.56	0.51
Disc Cash Flow	2,864,362	3,160,178	3,353,725	3,611,481	3,841,662	4,038,996	4,197,433

Total Discounted Cash Flows

24,814,751

Present Value of Outflow

24,106,781

NPV

708,970.31

Net present value is the present value of the cash flows at the required rate of return of your project compared to your initial investment. If the NPV of a project or investment is positive, it means that the discounted present value of all future cash flows related to that project or investment will be positive.

### 9.4 Return On Investments

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Net Profit	2,274,685	2,947,702	3,654,244	4,440,743	5,310,921	6,329,058	6,897,697
Average net profit				4,522,903.88			
Total Project cost				24,106,781.00			
ROI				18.76%			

Return on investment (ROI) is a performance measure used to evaluate the efficiency or profitability of an investment.

### 9.5 Payback Period (In years) - Project

Particulars	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Initial Investment	(24,106,781)							
Profit after Tax & Dividend		2,274,685	2,947,702	3,654,244	4,440,743	5,310,921	6,329,058	6,897,697
Add: Depreciation		849,114	849,114	849,114	849,114	849,114	849,114	849,114
Add: Preliminary exp. Written-off		27,000	27,000	27,000	27,000	27,000	27,000	27,000
Net Cash Accrual (A)		3,150,798	3,823,816	4,530,358	5,316,857	6,187,035	7,195,172	7,746,811
Cashflow - Initial Investment		(20,955,982)	(17,132,167)	(12,601,809)	(7,284,945)	(1,097,919)	5,889,262	13,627,872

The payback period refers to the amount of time it takes to recover the cost of an investment

9.6 Debt Service Coverage Ratio (DSCR)

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Net Operating Income	4,310,918	5,259,029	6,184,764	7,121,131	8,106,797	9,229,978	10,387,964
Total	4,310,918	5,259,029	6,184,764	7,121,131	8,106,797	9,229,978	10,387,964
Total Annual CMI	1,455,971	2,059,736	2,689,736	3,359,736	4,089,736	4,869,736	5,709,736
Debt Service Coverage Ratio (DSCR)	2.96	2.55	2.29	2.16	1.97	1.90	1.82

Average DSCR 2.28

the debt-service coverage ratio (DSCR) is a measurement of a firm's available cash flow to pay current debt obligations. The DSCR shows investors whether a company has enough income to pay its debt.

9.7 Sensitivity Analysis

Quantity Variation (+5%)	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Activity 1 - Flour Mill	-	-	-	-	-	-	-
Activity 1 - Onion Trading	33,347,602	39,231,628	44,944,177	51,126,966	57,823,234	65,057,143	72,876,364
Activity 2 - Onion Storage Service	1,344,000	1,429,400	1,522,000	1,621,500	1,728,000	1,842,500	1,965,000
Facility 4 - Custom Hiring	-	-	-	-	-	-	-
Facility 5 - Agr Input Centre	-	-	-	-	-	-	-
Facility 6 - Processing Unit - Horti Com	-	-	-	-	-	-	-
Total Income	34,691,602	40,661,028	46,466,177	52,748,466	59,551,234	66,900,143	74,841,364
Expenditure	1,436,000	1,507,600	1,583,100	1,662,700	1,746,400	1,834,200	1,926,177
Fixed Cost (I) incl. of Depreciation, Amort	28,648,271	32,024,41	35,051,274	37,666,133	40,082,735	42,368,706	44,522,504
Variable Cost	40,004,271	35,451,841	38,240,814	41,35,074	48,258,261	52,771,447	61,166,883
Total Operational Expenses	4,607,291	7,198,573	8,374,341	9,652,112	11,037,024	12,430,649	13,934,783
Net Income	2,955,312	3,657,827	4,322,003	5,046,160	5,832,158	6,583,643	7,394,436

Quantity Variance  
Cost Variance

Cost Variation (+5%)	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Activity 1 - Flour Mill	-	-	-	-	-	-	-
Activity 1 - Onion Trading	31,759,583	37,362,881	42,803,978	48,657,777	54,967,747	61,769,374	69,081,286
Activity 2 - Onion Storage Service	1,280,000	1,429,400	1,587,000	1,753,000	1,928,000	2,112,500	2,306,133
Facility 4 - Custom Hiring	-	-	-	-	-	-	-
Facility 5 - Agr Input Centre	-	-	-	-	-	-	-
Facility 6 - Processing Unit - Horti Com	-	-	-	-	-	-	-
Total Income	33,039,583	38,792,281	44,390,978	50,410,777	56,895,747	63,881,874	71,387,419
Expenditure	1,436,000	1,507,600	1,583,100	1,662,700	1,746,400	1,834,200	1,926,177
Fixed Cost (I) incl. of Depreciation, Amort	28,648,271	32,024,41	35,051,274	37,666,133	40,082,735	42,368,706	44,522,504
Variable Cost	40,004,271	35,451,841	38,240,814	41,35,074	48,258,261	52,771,447	61,166,883
Total Operational Expenses	2,955,312	3,657,827	4,322,003	5,046,160	5,832,158	6,583,643	7,394,436

Quantity Variation (-5%)	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Activity 1 - Flour Mill	-	-	-	-	-	-	-
Activity 1 - Onion Trading	31,171,604	36,484,737	41,663,779	46,760,966	52,316,261	58,361,435	64,930,274
Activity 2 - Onion Storage Service	1,216,000	1,307,600	1,408,200	1,518,700	1,639,200	1,769,700	1,910,200
Facility 4 - Custom Hiring	-	-	-	-	-	-	-
Facility 5 - Agr Input Centre	-	-	-	-	-	-	-
Facility 6 - Processing Unit - Horti Com	-	-	-	-	-	-	-
Total Income	32,387,604	37,792,337	43,071,979	48,279,666	53,955,461	60,131,135	66,840,474
Expenditure	1,436,000	1,507,600	1,583,100	1,662,700	1,746,400	1,834,200	1,926,177
Fixed Cost (I) incl. of Depreciation, Amort	28,648,271	32,024,41	35,051,274	37,666,133	40,082,735	42,368,706	44,522,504
Variable Cost	37,144,864	31,951,841	34,404,133	37,142,133	42,472,735	47,418,742	53,257,730
Total Operational Expenses	4,031,740	4,920,688	5,767,866	6,689,789	7,689,709	8,767,842	9,741,404

Cost Variation (-5%)	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Activity 1 - Flour Mill	-	-	-	-	-	-	-
Activity 1 - Onion Trading	31,759,583	37,362,881	42,803,978	48,657,777	54,967,747	61,769,374	69,081,286
Activity 2 - Onion Storage Service	1,280,000	1,429,400	1,587,000	1,753,000	1,928,000	2,112,500	2,306,133
Facility 4 - Custom Hiring	-	-	-	-	-	-	-
Facility 5 - Agr Input Centre	-	-	-	-	-	-	-
Facility 6 - Processing Unit - Horti Com	-	-	-	-	-	-	-
Total Income	33,039,583	38,792,281	44,390,978	50,410,777	56,895,747	63,881,874	71,387,419
Expenditure	1,436,000	1,507,600	1,583,100	1,662,700	1,746,400	1,834,200	1,926,177
Fixed Cost (I) incl. of Depreciation, Amort	28,648,271	32,024,41	35,051,274	37,666,133	40,082,735	42,368,706	44,522,504
Variable Cost	37,144,864	31,951,841	34,404,133	37,142,133	42,472,735	47,418,742	53,257,730
Total Operational Expenses	5,681,719	6,660,112	7,987,448	9,211,827	10,840,437	12,876,811	15,320,686

Sensitivity analysis is a financial model that determines how target variables are affected based on changes in quantity or cost variance known as input variables. Here it is assumed that (+, -) while calculating sensitivity analysis.

Facility 3 - Trading Unit  
12.1 Producers/ Capacity Utilization

Commodity	20 Quantal Hour						Tentative Wastage Percentage		
	No. of Hours						Percentage		
	31	32	33	34	35	36	37	38	39
Particulars	152	168	183	198	213	228	243		
No. of Operation Days	18,275	20,103	21,930	23,758	25,585	27,413	29,240		
Fruit & Vegetables Crop Production Details									
Onion	6,092	6,701	7,310	7,919	8,528	9,138	9,747		
Total F & V Quantities to be Processed	24,367	26,804	29,240	31,677	34,113	36,550	38,987		
Joint Work (50%)									
Quantity for sale (50%)									
Fruit & Vegetables Crop Production Details									
Onion	18,275	20,103	21,930	23,758	25,585	27,413	29,240		
Onion	6,092	6,701	7,310	7,919	8,528	9,138	9,747		
Output									
Fruit & Vegetables Crop Production Details									
Onion	17,361.29	19,074.42	20,813.55	22,500.62	24,208.80	25,941.93	27,778.06		
Onion	5,782.10	6,368.87	6,934.82	7,532.22	8,107.91	8,680.64	9,259.15		

23,148 35,463

12.2 Facility 1 - Profit and loss of Trading

Particulars	100%							105.80%			110.25%			115.76%			121.55%			127.63%			134.00%		
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53		
Revenue	500	11,759,543	37,002,862	47,803,978	48,606,372	55,069,747	61,959,374	67,400,290																	
Total Revenue		11,759,543	37,002,862	47,803,978	48,606,372	55,069,747	61,959,374	67,400,290																	
Expenses																									
Variable Cost																									
Direct Labour	1,000	24,466,270	38,141,563	37,237,121	36,669,782	41,465,061	46,648,193	52,245,976																	
Raw Material Expenses	17	848,251	637,230	735,136	835,020	912,964	1,049,584	1,175,534																	
Other Variable Expenses	15	1,338,903	1,048,183	1,048,183	1,837,519	2,090,178	2,361,508	2,978,021																	
Overhead Expenses (Constant Cost)	25	1,137,419	1,136,839	1,531,766	1,741,815	1,969,590	2,215,789	2,481,684																	
All Operating Costs		27,789,855	41,020,805	40,552,335	40,283,210	45,374,629	50,634,074	56,771,272																	
Less: Change Stock																									
Total Variable Cost		27,789,855	41,020,805	40,552,335	40,283,210	45,374,629	50,634,074	56,771,272																	
Fixed Cost																									
Depreciation	1	12,000	144,000	151,200	158,760	166,608	175,011	183,785																	
Salvage Value																									
Operating Income		8,969,688	15,982,057	7,251,643	8,323,162	9,695,118	11,325,300	10,629,018																	
Total Fixed Cost		144,000	151,200	158,760	166,608	175,011	183,785	192,974																	
Total Expenses		158,400	166,400	174,620	183,216	192,019	201,566	211,969																	
Operating Income		8,811,288	15,815,657	7,097,023	8,156,546	9,523,109	11,143,734	10,417,049																	

1. Inflation is assumed to be 5% annually.  
This sheet provides details capacity utilization of machines and the sale, expenses and operating profit of trading activity.

**Facility 2 - Onion Storage**  
**11.1 Capacity Utilization**

Capacity 1,000,00 MT

No. of Month 1

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Capacity Utilization	81%	85%	90%	95%	100%	100%	100%
Total Quantity Stored per Annum	800,000	850,000	900,000	950,000	1,000,000	1,000,000	1,000,000

**11.2 Facility 2 - Profit and loss of Onion Storage**

Particulars	Unit	Rate	100%	105.00%	110.25%	115.76%	121.55%	127.63%	134.01%
			Y1	Y2	Y3	Y4	Y5	Y6	Y7
<b>Revenue</b>									
Storage Charges per kg		1.6	1,280,000	1,428,000	1,587,600	1,759,590	1,944,810	2,042,951	2,144,153
<b>Total Revenue</b>			1,280,000	1,428,000	1,587,600	1,759,590	1,944,810	2,042,951	2,144,153
<b>Expenses</b>									
<b>Variable Cost</b>									
Labour	10	300	300,000	315,000	330,750	347,288	364,652	382,884	402,029
Electricity	12	5,000	60,000	63,000	66,150	69,458	72,930	76,577	80,406
Insurance		0	12,000	13,388	14,884	16,496	18,233	19,144	20,101
<b>Total Variable Cost</b>			372,000	391,388	411,784	433,241	455,815	478,606	502,536
<b>Fixed Cost</b>									
Onion Storage Manager	1	10,000	120,000	126,000	132,300	138,915	145,861	153,154	160,811
<b>Total Fixed Cost</b>			120,000	126,000	132,300	138,915	145,861	153,154	160,811
<b>Total Expenses</b>			492,000	517,388	544,084	572,156	601,676	631,759	663,347
<b>Operating profit</b>			788,000	910,613	1,043,516	1,187,434	1,343,134	1,410,291	1,480,806

This sheet provide details capacity utilization of machines and also sale, expenses and operating profit of Dal Mill activity