

MODEL DPR

ESTABLISHMENT OF TURMERIC
PROCESSING UNIT
(WITHOUT CAPITAL SUBSIDY)

Submitted to



Department of Agriculture,
Cooperation & Farmers Welfare

Submitted by



Knowledge Partner
NABARD Consultancy Services
Corporate Office: 24 Rajendra Place,
7th Floor, NABARD Building, New Delhi
Registered Office: Plot No. C-24, G Block,
3rd Floor, NABARD Building, Bandra Kurla Complex,
Bandra East, Mumbai

AMPLE

PROJECT REPORT:
TURMERIC PROCESSING UNIT

DPR Template for projects under Agriculture Infrastructure Fund¹

To be filled by the applicant

1. Details of the Applicant

SN	Particulars	Details
i.	Name of the Applicant	
ii.	Constitution Legal Status of Applicant : (i.e. Govt. organization, NGO, Co-operative society, Company, partnership firm, proprietorship firm, Individual, FPO, Self Help Group, etc.)	
iii.	Registration No. of Applicant/CIN	
iv.	GST No. of Applicant	
v.	Date of Establishment/ Incorporation	
vi.	Address of the registered office	
vii.	PAN No. of Applicant	
viii.	Address of the proposed site	
ix.	District	
x.	State	
xi.	Pin Code	
xii.	Whether lead promoter belong to SC/ ST/ Woman/Minority	

*Details of associates/ allied firms, if any may also be provided.

2. Contact details of the Applicant/Promoter(s)/Partner(s)/Directors(s)/ Members including addresses, telephone, mobile, fax, e-mail, website, PAN etc.

SN	Name of Applicant/ Promoter(s)/ Partner(s)/ Director(s)/ Members	Address	Telephone No.	Mobile No.	E-mail Id	Any other details
1						

To be filled by the applicant

¹ This template is prepared keeping in mind the essential information required by the lending institutions to process the loan application. Different formats of table/description can be used for preparation of the DPR but all the required information in template should be included in the DPR.

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3. Details of the Promoter(s)/Partner(s)/Directors(s)/ Members

SN	Name of Promoter(s)/ Partner(s)/ Director(s)/ Members	Aadhaar No.	PAN No.	Academic and technical Qualification	Net Worth	DIN No.	Credit Rating	Date of Share holding	Partner profit sharing ratio
1									
To be filled by the applicant									
2									

4. Relative experience of the Applicant/Promoter(s)/Partner(s)/Directors(s)/ Members

SN	Name of lead Applicant/Promoter(s)/Partner(s)/ Members of Applicant Entity	Detail of Experience	Details of Turnover (year-wise)	Supporting Document attached, if any (Yes/No)
1				
To be filled by the applicant				
2				

5. Details of Existing Banking and Credit facilities of the Applicant/ Promoter(s)/ Partner(s)/ Directors(s)

SN	Types of Facility	Name of Bank and Branch	Limits	Outstanding as on dd/mm/yyyy	Securities	Rate of interest	Repayment terms	Purpose
1	Cash Credit							
To be filled by the applicant								
2	Term Loan							

3	Others							
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*Information pertaining to credit rating (internal /external) may also be shared along with the aforementioned information

Details of GST Returns submitted, if any or status of registration

6. Project Details

a. Objective of the proposed project: TURMERIC PROCESSING UNIT

b. Category of proposed infrastructure as per the Scheme:

SN	Component	Mark Tick (✓)
1	Supply chain	
2	Warehouses	
3	Silos	
4	Pack Houses	
5	Assaying Unit	
6	Sorting & Grading unit	
7	Cold Chain	
8	Logistics facilities	
9	Primary Processing Centres	✓
10	Ripening Chambers	
11	Organic input production	
12	Bio stimulant production unit	
13	Infrastructure for Smart and precision agriculture	
14	Projects identified for providing supply chain infrastructure for clusters of crops including export clusters.	
15	Projects promoted by Central/State/Local Governments or their agencies under PPP for building community farming assets or post-harvest management projects.	
16	Any other (please Specify)	

c. Type of Operating Model (Rental, PPP, captive, Lease, Franchise etc.) and details

7. Land Details:

To be filled by the applicant, some sample details are added

SN	Particulars	Details
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1	Land Area	3000 sq ft (land considered as Owned/ Leased)
2	Status of Legal title & Possession	
3	if leased, Period of lease	
4	Coordinates of location	
5	Details of CLU	
6	Connectivity to roads I. State Highway (in Km.) II. National Highway (in Km.)	XX Km from YY road
7	Availability of Water	Borewell and water pipe line
8	Availability of Power	1. 05 kw RSEB

8. Proposed facilities:

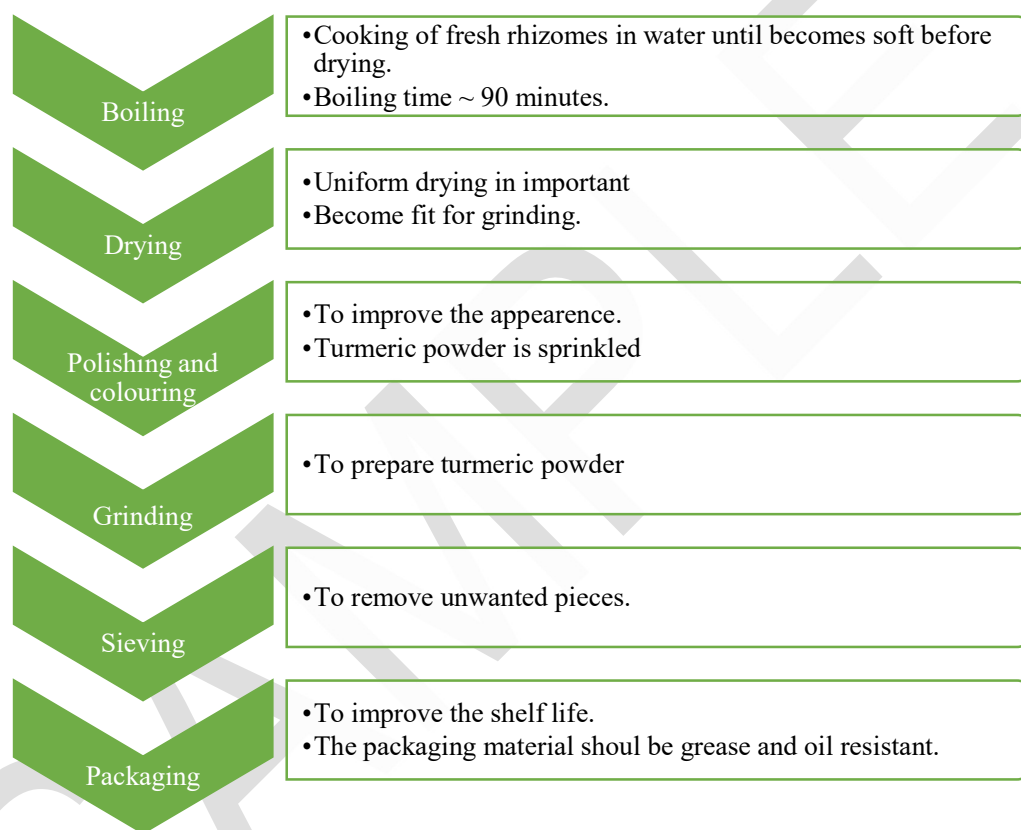
I. Details of proposed facility

S N	Type of facilities proposed to be created	No. of Units	Total Capacity [MT, Ltrs, MT/Hr.	No. of Days of operation
1	Warehouse			
2	Silos			
3	Pack-house			
4	CA Store			
5	Cold store			
6	Frozen store			
7	Pre-cooling Chambers			
8	Processing unit, Weighing, Packing facility [Modify as per actual]	1 Unit	1000 KG Per Hour	225 days
9	Ripening Chambers			
10	IQF			
11	Blast Freezing			
12	Refrigerated Vehicles/ Reefer vans			
13	Mobile Pre-coolers			
14	Insulated/ non-insulated distribution vehicle			
15	Irradiation Facility			
16	Organic input production			
17	Bio Stimulant production units			
18	Others (Specify)			

II. Details of technologies to be used/ alternative technologies Boiler, conveyor belt, hot air dryer

III. Flow chart of activity process

Fresh Turmeric rhizomes are cured for preparing the dry turmeric powder. This require obtaining rhizome fingers from farmers, cleaning them by boiling . This makes the turmeric rhizomes even moist, to convert it into powder drying process is required. The drying process makes turmeric powder dull, to make it saleable in the market, the powder has to go through polishing process in the last. Below is the flow chart showing the complete process:



9. Proposed Project Financials

a. Estimated Project cost details

S. No.	Particulars	Amount (Rs. In Lakhs)
1	Civil Works	12.00
2	Plant & Machineries	35.35
3	Miscellaneous Fixed Assets	3.00
4	Working Capital Margin Money	4.10
5	Preliminary & Preoperative Expenses	01.00

	Project Cost	55.45
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b. Plant and Machineries

A list of plant and machinery required for a turmeric processing unit are as under:

S.No	Name of Machinery	Qty. in Nos	Price in Rs.
1	Weighing scale	1	100,000
2	Washer	1	250,000
3	Curing boiler furnance	1	200,000
4	Dryer	1	600,000
5	Polishing machine	1	200,000
6	Automatic Turmeric Grinding machine	1	1,600,000
7	Siever	1	150,000
8	Material Handling Equipment	1	85,000
9	Miscellaneous Tools	1	50,000
10	Packing machine	1	300,000
Total Machineries (Rs. In Lakhs)			35,35,000
Miscellaneous fixed assets			3,00,000
Total Cost of Plant and Machineries (Rs. In Lakhs)			38.35Lakhs

c. Means of finance

S. No.	Source of Finance	Amount (Rs. In Lakhs)	%
1	*Promoter's Equity (10.00%)	5.545	10.00
2	Term Loan from Bank	45.805	82.61
3	Working Capital Margin Money	4.1	7.39
	Total	55.45	100

*The source of the owned funds and also the capacity of the promoter to support the project in the event of cost escalations due to time overruns should also be mentioned

d. Basic Revenue Projections (₹ in lakh)

SN	Item	Year 1	Year 2	Year 3	Year 4	Year 5
1	Turnover	1806.95	2153.28	2318.92	2484.55	2650.19
2	Cost of Operations	1791.24	2127.87	2290.75	2453.79	2616.99
3	Gross Profit	15.71	25.41	28.16	30.76	33.20

4	Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA)	15.71	25.41	28.16	30.76	33.20
5	Profit before taxation	4.775	16.768	20.750	24.469	27.929
6	Profit after taxation	3.042	11.737	14.525	17.128	19.550

*CMA data to be provided along with projected balance sheet, profit & loss statements, covering entire period of repayment.

e. Financial Parameters

SN	Particulars	Details (Ratio/%)	Ref Page No. in DPR*
1	Internal Rate of Return (IRR) [(a) With and (b) without grant/ subsidy]	78.32%	-
2	Avg. Debt Service Coverage Ratio (DSCR)	4.20	-
3	Break Even Point (BEP)	49.88%	-
4	Debt-Equity Ratio (TTL/TNW)	2.054	-
5	Fixed Assets Coverage Ratio	2.12	-

f. Credit Facilities proposed

I. Fund Based

- a) Term Loan 45.805 lacs
- b) Working Capital 4.10 lacs
(Attach Assessment of working capital, if proposed)

II. Non Fund Based

Collateral Security proposed to be offered and its approximate value for the applicable cases. (To be furnished only in case of loans above Rs.2 crore)

g. Repayment Schedule (Including moratorium period) - 84 Months (Including 6 months Moratorium)

h. Details of Statutory/other approvals/registrations (status) Completed

10. **Availability of Raw Materials in the Catchment Area - provide details such as Adequate Volume, Wider Mix of Raw Materials, Days of Operation in a Year along with supporting data. Based on this information feasibility/viability of the project should be justified.**

Raw material is to be acquired from nearby farmer suppliers. The unit has agreed to procure the

rhizomes from the farmers at the prices agreed in the agreement.

The unit shall operate for 225 days in a year.

11. Details of the catchment area of the project

S.N	Location of the Catchment (Primary/Secondary)	Name Village/Dist/ APMC	Commodities to be sourced	Quantities to be sourced [MT] (per annum)
1				
2				

*DPR should comprised of detailed chapter on proposed catchment (production and supply statistics).

12. Details of existing demand of the product and marketing arrangements (including e-trading), possibility of for leasing with FCI/CWC/SWC/e-commerce players / retailers for assured cash flows if any.

Turmeric (*Curcuma longa* L.) is one of the oldest cultivated crops grown in India. Turmeric, the main spice powder in the Indian cuisine, is considered by many to be the most powerful herb on the planet at fighting and potentially reversing disease. Turmeric is an erect perennial crop, but it is grown as an annual crop. India is the largest producer, consumer and exporter of turmeric in the world. Turmeric was cultivated over an area of lakh ha in *State Name, India* with a production of lakh tonnes.

Processing of Turmeric into value added products such as Turmeric powder can ensure nutritional and food security, improved profitability and also offers huge scope for entrepreneurship development at micro, small or medium scale levels. Turmeric is eaten as a food both raw and cooked throughout Asia. While turmeric root looks much like ginger root, it is less fibrous and is more chewable, crunchy, and succulent. The fresh root (not the powder) has a mildly sweet and nutty flavour mixed with its bitter flavour. As a result, it is not unpleasant to eat and not difficult to chew. Traditional use includes mashing/grinding it in a mortar to make a paste to mix with other turmeric powders for flavouring in curries. In modern times, the most common use is of the dried root powder as the base of most curries in India and other nearby countries. Indian turmeric is considered to be the best in the world market because of its high curcumin content.



13. Employment Generation projections

- a. Direct Employment: (Skilled and Semi-skilled): 12
- b. Contractual Employment with no. of days:
- c. Indirect Employment (specify): ...Packing material suppliers, Dealers and Service providers, Local vendors gets indirect employment from this project in rural areas.

Particulars	Nos.	Monthly Salary (Rs.)
Accountant -cum -Cashier	1	22000
Mechanic	4	10000
Helper	1	15000
Labour	4	12000
Security	2	10500
Total salary for the year	10	1752000
Benefits @ 30%		525600
Total salary (Rs. In Lakh Per year)		22.77 lakhs

- Direct Employment: (Skilled and Semi-skilled) -12
- Contractual Employment with no. of days: 4 (300 days)
- Indirect Employment (specify): 25

14. Details of renewable/ alternate energy sources including solar energy, if any, proposed to be used for

operating the project including inter alia, details of power generation.

50% of power requirement will be fulfilled by renewable energy

15. Details of pollution issues (if any) and adoption of modern technology for reducing the carbon footprints and increasing operational efficiency:-

SN	Name of technology/item	Basic cost (Excluding taxes etc.)	How the technology will help in reducing carbon footprint and/or increase in operational efficiency
1			
2			

16. List of Manufacturers/ Suppliers of P&M (enclose quotations)

I Certify that the information / contents as above furnished by me / us are true to the best of my / our knowledge and belief and nothing material has been concealed. In case, any information furnished in the application is found false, my / our application may be rejected out at any stage by the Bank and not eligible under Agriculture Infrastructure Fund scheme.

To be filled by the applicant

Date: _____

Signature of the Applicant

Place: _____

Annexures

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DPR with subsidy

Annexure 1 - Estimated cost of the project

Estimated cost of project		
Sr. No.	Particulars	Grand Total (in lakhs)
1	Land and site development	
(a)	Land (Lease in name of company)	-
	Total	-
2	Site Development	-
(a)	Total	-
3	Civil Work	
(a)	Civil Work	12.00
	Total	12.00
4	Plant and Machinery (indegenuous)	
(a)	Plant and Machinery	35.35
	Total	35.35
5	Miscellanoeous Fixed Assets	
(a)	Cost	3.00
6	Working Capital Margin	4.10
7	Preliminary Expenses	-
(a)	Security Deposit	-
	Total	-
8	Pre-Operative Expense (for 6 months upto the date od commencement of commercial production)	
(a)	Establishment and Travelling and Other Expenses	
(b)	Legal and Misc Expense	1.00
	Total	1.00
	Total Cost of Project	55.45

Annexure 2 - Means of Finance

Sr. No.	Item	Grand Total (in lakhs)
1	Promoter's equity	5.545
2	Eligible Assistance	-
3	Term Loan	45.805
4	CC Limit	4.10
	Total	55.45

Annexure 3 - Complete Estimate of Civil and Plant and Machinery

1. Civil Work		Units	Amt
1	Civil work for building	1	1,200,000
Total Civil Work			1,200,000
2. Plant and machinery**		Units	Amt
1	Weighing scale	1	100,000
2	Washer	1	250,000
3	Curing boiler furnance	1	200,000
4	Dryer	1	600,000
5	Polishing machine	1	200,000
6	Automatic Turmeric Grinding machine	1	1,600,000
7	Siever	1	150,000
8	Material Handling Equipment	1	85,000
9	Miscellaneous tools	1	50,000
10	Packing machine	1	300,000
Total Plant and Machinery			3,535,000
3. Miscellanoeus Fixed Asset			300,000
Total fixed Assets			5,035,000

** The Plant and Machinery cost estimate is as per the available technology

Annexure 4 - Estimated Cost of Production

Sr. No	Description	Year ending March 31st								
		I	II	III	IV	V	VI	VII	VIII	IX
	No of Working months	12	12	12	12	12	12	12	12	12
	Input turmeric rhizomes	151,200,000	180,180,000	194,040,000	207,900,000	221,760,000	235,620,000	249,480,000	263,340,000	277,200,000
	Electricity expense	1,200,000	1,252,500	1,307,625	1,365,506	1,426,282	1,490,096	1,557,100	1,627,455	1,701,328
	Insurance cost @ 2% of purchase cost	100,700	105,735	111,022	116,573	122,401	128,522	134,948	141,695	148,780
	Running and Manintenance expense @15% of raw material	22,680,000	27,027,000	29,106,000	31,185,000	33,264,000	35,343,000	37,422,000	39,501,000	41,580,000
	Cost of Production	175,180,700	208,565,235	224,564,647	240,567,079	256,572,683	272,581,617	288,594,048	304,610,150	320,630,108
	Add: Opening Stock	-	1,782,000	3,712,500	5,791,500	8,019,000	10,395,000	7,870,500	5,197,500	2,376,000
	Less: Closing Stock	1,782,000	3,712,500	5,791,500	8,019,000	10,395,000	7,870,500	5,197,500	2,376,000	-
	Sub Total	173,398,700	206,634,735	222,485,647	238,339,579	254,196,683	275,106,117	291,267,048	307,431,650	323,006,108
	Administrative salaries and wages	2,277,600	2,437,032	2,607,624	2,790,158	2,985,469	3,194,452	3,418,063	3,657,328	3,913,341
	Packaging cahrges @ Rs. 2 per kg	2,138,400	2,316,600	2,494,800	2,673,000	2,851,200	3,090,600	3,272,400	3,454,200	3,628,800
	Selling charges @ Rs. 1 per kg	1,069,200	1,158,300	1,247,400	1,336,500	1,425,600	1,545,300	1,636,200	1,727,100	1,814,400
	Fixed charge for office	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000
	Total	5,725,200	6,151,932	6,589,824	7,039,658	7,502,269	8,070,352	8,566,663	9,078,628	9,596,541
	Cost of Sales	179,123,900	212,786,667	229,075,471	245,379,237	261,698,952	283,176,469	299,833,712	316,510,278	332,602,649
	Expected sales revenue	180,694,800	215,327,970	231,891,660	248,455,350	265,019,040	287,271,270	304,169,580	321,067,890	337,296,960
	Gross Profit	1,570,900	2,541,303	2,816,189	3,076,113	3,320,088	4,094,801	4,335,868	4,557,612	4,694,311
	Financial expense									
	Interest on Term Loan	272,187	237,834	195,552	153,271	60,822	-	-	-	-
	Interest on WC Loan	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000
	Total Financial expense	313,187	278,834	236,552	194,271	101,822	41,000	41,000	41,000	41,000
	Operating profits (PBT)	1,257,713	2,262,469	2,579,637	2,881,842	3,218,266	4,053,801	4,294,868	4,516,612	4,653,311
	Preliminary Expense	100,000	-	-	-	-	-	-	-	-
	depreciation	680,250	585,713	504,606	434,990	375,209	323,848	279,700	241,731	209,058
	Other income - Subsidy for repayment	-	-	-	-	1,797,250	-	-	-	-
	Net Profit before Tax	477,463	1,676,757	2,075,031	2,446,853	4,640,307	3,729,953	4,015,169	4,274,881	4,444,253
	Income Tax	173,239	503,027	622,509	734,056	852,917	1,118,986	1,204,551	1,282,464	1,333,276
	Profits after Tax	304,224	1,173,730	1,452,522	1,712,797	3,787,390	2,610,967	2,810,618	2,992,417	3,110,977
	Distribution of profits (80%)	243,379	938,984	1,162,018	1,370,237	3,029,912	2,088,774	2,248,495	2,393,933	2,488,782
	Profit transfer to balance sheet	60,845	234,746	290,504	342,559	757,478	522,193	562,124	598,483	622,195

1. Electricity are semi-fixed cost. Rs. 150,000 pa is fixed, balance is variable at Rs. 14 per unit usage

2. Electricity usage in units is given below

Usage in units	75000	78750	82687.5	86821.875	91162.96875	95721.11719	100507.173	105532.5317	110809.1583
Variable cost	1050000	1102500	1157625	1215506.25	1276281.563	1340095.641	1407100.423	1477455.444	1551328.216

3. It is assumed that insurance cost is 2% of purchase price and this will increase 5% annually

4. Closing stock is valued at Rs 165 (avg cost)

5. Input cost of rhizomes would increase 10% per annum while 5% of input is wasted.

Annexure 5- Projected balance sheet

Projected Balance sheet

Sr. No	Description	Year ending March 31st								
		I	II	III	IV	V	VI	VII	VIII	IX
A	Asset									
1	Fixed Capital expenditure									
	Gross Block	5,035,000.00	4,354,750.00	3,769,037.50	3,264,431.88	2,829,442.09	2,454,233.28	2,130,385.04	1,850,685.36	1,608,954.82
	Less- Depreciation	680,250.00	585,712.50	504,605.63	434,989.78	375,208.81	323,848.24	279,699.68	241,730.54	209,058.18
	Net Block	4,354,750.00	3,769,037.50	3,264,431.88	2,829,442.09	2,454,233.28	2,130,385.04	1,850,685.36	1,608,954.82	1,399,896.64
2	Sundry debtors	36,138,960.00	43,065,594	46,378,332	49,691,070	53,003,808	57,454,254	60,833,916	64,213,578	67,459,392
3	Closing stock	1,782,000.00	3,712,500	5,791,500	8,019,000	10,395,000	7,870,500	5,197,500	2,376,000	-
4	Cash/ bank balance	15,141,788.61	16,398,521	15,878,900	15,193,219	13,304,791	17,006,587	21,923,448	26,987,200	31,730,340
	Total assets	57,417,498.61	66,945,652	71,313,164	75,732,731	79,157,832	84,461,726	89,805,549	95,185,733	100,589,628
B	Liabilities									
1	Capital	554,500.00	615,345	850,091	1,140,595	1,483,154	2,240,632	2,762,826	3,324,949	3,923,433
	Add- Profit	60,844.76	234,746	290,504	342,559	757,478	522,193	562,124	598,483	622,195
	Less- Drawings	-	-	-	-	-	-	-	-	-
	Closing capital	615,344.76	850,091	1,140,595	1,483,154	2,240,632	2,762,826	3,324,949	3,923,433	4,545,628
2	Term Loan	4,228,153.85	3,523,462	2,818,769	2,114,077	-	-	-	-	-
3	Working capital	410,000.00	410,000	410,000	410,000	410,000	410,000	410,000	410,000	410,000
4	Creditors	52,164,000.00	62,162,100	66,943,800	71,725,500	76,507,200	81,288,900	86,070,600	90,852,300	95,634,000
	Total liabilities	57,417,498.61	66,945,652	71,313,164	75,732,731	79,157,832	84,461,726	89,805,549	95,185,733	100,589,628
	Current Ratio									
	Current Assets	53,062,749	63,176,615	68,048,732	72,903,289	76,703,599	82,331,341	87,954,864	93,576,778	99,189,732
	Current Liabilities	52,574,000	62,572,100	67,353,800	72,135,500	76,917,200	81,698,900	86,480,600	91,262,300	96,044,000
	Ratio	1.009296394	1.009661091	1.010317643	1.010643709	0.997222977	1.007741117	1.017047339	1.025360724	1.032753025
	Average				1.013338224					
	Debt Equity ratio									
	Debt	4,638,154	3,933,462	3,228,769	2,524,077	410,000	410,000	410,000	410,000	410,000
	Equity	615,345	850,091	1,140,595	1,483,154	2,240,632	2,762,826	3,324,949	3,923,433	4,545,628
	Ratio	7.537488123	4.627107951	2.830775997	1.701830107	0.182984053	0.148398788	0.123310146	0.104500325	0.090196554
	Average				1.927399116					
	Fixed asset coverage ratio									
	Fixed assets	4,354,750	3,769,038	3,264,432	2,829,442	2,454,233	2,130,385	1,850,685	1,608,955	1,399,897
	Debt	4,638,154	3,933,462	3,228,769	2,524,077	410,000	410,000	410,000	410,000	410,000
	ratio	0.938897273	0.958198641	1.011045275	1.120980929	5.985934829	5.196061068	4.513866725	3.924280051	3.414382045
	Average				3.007071871					
	Debt service coverage ratio									
	Interest on loan (TL + WC)	313,187	278,834	236,552	194,271	101,822	41,000	41,000	41,000	41,000
	Instalment of loan	762,346	1,114,692	1,114,692	1,114,692	726,827	410,000	410,000	410,000	410,000
	Total Interest	1,075,534	1,393,526	1,351,244	1,308,963	828,649	451,000	451,000	451,000	451,000
	Net operating income	1,570,900	2,541,303	2,816,189	3,076,113	3,320,088	4,094,801	4,335,868	4,557,612	4,694,311
	Ratio	1.460577393	1.823649555	2.084144779	2.350038349	4.006626033	9.07938134	9.613899106	10.10556907	10.40867223
	Average				5.659173096					

1. assumed that 90 days of purchases are average creditors maintained
2. assumed that 60 days of sales are average debtors maintained by the business

Annexure 8 - Details of Manpower

Details of Manpower

S. No.	Designation	In no.	Salary per person per month	Annual cost
i.	Accountant cum cashier	1	22,000	264,000
ii.	Mechanic	4	10,000	480,000
iii.	Helpers	1	15,000	180,000
iv.	Labour	4	12,000	576,000
v.	Security	2	10,500	252,000
Total				1,752,000
Add: benefits @ 30%				525,600
Total				2,277,600

Total annual wages	2,277,600
Annual increase in wages	7%
Total manpower	12

Annexure 9 - Computation of Depreciation

Computation of Depreciation

Sr. No.	Particulars	Civil work	Plant and Machinery	Misc Fixed Asset	Amount in lakhs
i.	Cost	1,200,000	3,535,000	300,000	50.35
ii.	Pre operatives	-	-	-	0.00
iii.	Contingencies	-	-	-	0.00
	Total				50.35

	Rates of Depreciation	10%	15%	10%	Total depreciation for the year
Year 1		120,000.00	530,250.00	30,000.00	680,250.00
Year 2		108,000.00	450,712.50	27,000.00	585,712.50
Year 3		97,200.00	383,105.63	24,300.00	504,605.63
Year 4		87,480.00	325,639.78	21,870.00	434,989.78
Year 5		78,732.00	276,793.81	19,683.00	375,208.81
Year 6		70,858.80	235,274.74	17,714.70	323,848.24
Year 7		63,772.92	199,983.53	15,943.23	279,699.68
Year 8		57,395.63	169,986.00	14,348.91	241,730.54
Year 9		51,656.07	144,488.10	12,914.02	209,058.18

Annexure 10 - Calculation of Income tax

Calculation of Income Tax

Particulars	Year ending March 31st								
	I	II	III	IV	V	VI	VII	VIII	IX
Net profit before tax	1,257,713	2,262,469	2,579,637	2,881,842	3,218,266	4,053,801	4,294,868	4,516,612	4,653,311
Add- dep on SLM	-	-	-	-	-	-	-	-	-
Sub total	1,257,713	2,262,469	2,579,637	2,881,842	3,218,266	4,053,801	4,294,868	4,516,612	4,653,311
Less- Dep on WDV	680,250	585,713	504,606	434,990	375,209	323,848	279,700	241,731	209,058
Sub total	577,463	1,676,757	2,075,031	2,446,853	2,843,057	3,729,953	4,015,169	4,274,881	4,444,253
Less - Deductions	-	-	-	-	-	-	-	-	-
Taxable profits	577,463	1,676,757	2,075,031	2,446,853	2,843,057	3,729,953	4,015,169	4,274,881	4,444,253
Income tax @30%	173,239	503,027	622,509	734,056	852,917	1,118,986	1,204,551	1,282,464	1,333,276

Annexure 11- Break even analysis (At maximum capacity utilization)

Break even capacity at maximum capacity utilization

Sales		258,135,429
Variable cost		
- Running and maintenance cost	38,720,314	
- Interest on Working capital	41,000	
- electricity expense	1,551,328	40,312,643
Contribution		217,822,786
Less: Fixed costs		
Wages and salaries		2,277,600
Depreciation		680,250
Fixed charges for office		240,000
Electricity fixed charge		150,000
Insurance cost		100,700
Interest on TL		272,187
Fixed cost		3,720,737

Particulars	Rs. per kg
Sales price per kg	169
Variable costs	
Input rhizomes cost	140
Electricity cost	0.83
Running and maintenance	21
Packing charges	2
Selling expense	1
Interest on working capital	0.02
Contribution per unit	4.143888889
BEP in kgs	897,885.42
Total BEP %	49.88%

Break-even point is the condition when an entity generate sufficient revenue that it can meet its fixed expense after deducting any variable expense, i.e., the point where contribution is equal to the fixed expense.

For the first year of operation the break-even capacity comes at 49.88% capacity, it is because of the fact that in the Initial year the fixed expense of consultancy for project is taken in to consideration for calculation of BEP. considering our operational capacity in year 1 to be 60% which is more than the BEP, hence we can conclude that the project is sound enough to cover its fixed expense.

Annexure 13 - Repayment schedule

Repayment schedule

Amount of Loan (in lakhs)	45.8050
Amount of Subsidy (in lakhs)	17.9725
Rate of interest	6.00%
Moratorium period	6 months

Year	Quarter	Balance outstanding	Principal instalment	Interest
1	1	45.81	0	0.68708
	2	45.81	0	0.68708
	3	45.81	1.761730769	0.68708
	4	44.04326923	1.761730769	0.66065
2	1	42.28153846	1.761730769	0.63422
	2	40.51980769	1.761730769	0.6078
	3	38.75807692	1.761730769	0.58137
	4	36.99634615	1.761730769	0.55495
3	1	35.23461538	1.761730769	0.52852
	2	33.47288462	1.761730769	0.50209
	3	31.71115385	1.761730769	0.47567
	4	29.94942308	1.761730769	0.44924
4	1	28.18769231	1.761730769	0.42282
	2	26.42596154	1.761730769	0.39639
	3	24.66423077	1.761730769	0.36996
	4	22.9025	1.761730769	0.34354
5	1	21.14076923	1.733269231	0.31711
	2	19.4075	1.435	0.29111
	3	17.9725	0	0
	4	0	0	0
6	1	0	0	0
	2	0	0	0
	3	0	0	0
	4	0	0	0
7	1	0	0	0
	2	0	0	0
	3	0	0	0
	4	0	0	0

and scheme offered by the government at that time. Thus it is assumed here that 35% of cost of project (Rs. 17.9725 lakhs) is sourced through back end subsidy but limited to Rs. 5 crores.

The amount Rs. 17.9725 lakhs is sourced by Government subsidy. Since this is a back end subsidy, the amount is funded to bank at the end of repayment schedule.

Subsidy is available maximum 35%

Annexure 14 - Cash flow statement

Particulars	0	I	II	III	IV	V	VI	VII	VIII	IX
opening balance	410,000	410,000	15,141,789	16,398,521	15,878,900	15,193,219	13,304,791	17,006,587	21,923,448	26,987,200
Add: Capital	554,500	-	-	-	-	-	-	-	-	-
Add: Loan disbursement	4,580,500	-	-	-	-	-	-	-	-	-
Less: Purchase of asset	5,035,000	-	-	-	-	-	-	-	-	-
Less: Land purchase	-	-	-	-	-	-	-	-	-	-
Add: Sales realizations	-	144,555,840	172,262,376	185,513,328	198,764,280	212,015,232	229,817,016	243,335,664	256,854,312	269,837,568
Less: Payment made to creditors of previos year	-	-	52,164,000	62,162,100	66,943,800	71,725,500	76,507,200	81,288,900	86,070,600	90,852,300
Add: Receipts from debtors of previos year	-	-	36,138,960	43,065,594	46,378,332	49,691,070	53,003,808	57,454,254	60,833,916	64,213,578
Less: Payments made for current year purchase	-	128,741,900	152,555,067	164,210,671	175,881,237	187,567,752	199,363,069	211,090,112	222,836,478	234,592,649
Less: Pre incorporation expense	100,000	-	-	-	-	-	-	-	-	-
Less: Interest payments	-	313,187	278,834	236,552	194,271	101,822	41,000	41,000	41,000	41,000
	410,000	15,910,753	18,545,224	18,368,120	18,002,205	17,504,447	20,214,346	25,376,493	30,663,598	35,552,397
Less: Income tax	-	173,239	503,027	622,509	734,056	852,917	1,118,986	1,204,551	1,282,464	1,333,276
	-	15,737,514	18,042,197	17,745,610	17,268,149	16,651,530	19,095,360	24,171,943	29,381,133	34,219,121
Less: Distrubutions made from profits	-	243,379	938,984	1,162,018	1,370,237	3,029,912	2,088,774	2,248,495	2,393,933	2,488,782
	-	15,494,135	17,103,213	16,583,593	15,897,912	13,621,618	17,006,587	21,923,448	26,987,200	31,730,340
Less: Principal repayment of loan	-	352,346	704,692	704,692	704,692	316,827	-	-	-	-
Closing cash balance	410,000	15,141,789	16,398,521	15,878,900	15,193,219	13,304,791	17,006,587	21,923,448	26,987,200	31,730,340

S. no. Assumptions

- 1 Electricity are semi-fixed cost. Rs. 150,000 pa is fixed, balance is variable at Rs. 14 per unit usage
- 2 Electricity usage in units is given below

Usage in units	75000	78750	82687.5	86821.875	91162.96875	95721.11719	100507.173	100507.173	100507.173
Variable cost	1050000	1102500	1157625	1215506.25	1276281.563	1340095.641	1407100.423	1407100.423	1407100.423

- 3 Assumed that 90 days of purchases are average creditors maintained
- 4 Assumed that 60 days of sales are average debtors maintained by the business
- 5 It is assumed that insurance cost is 2% of purchase price and this will increase 5% annually
- 6 Input cost of rhizomes would increase 10% per annum and there would be 5% wastage in processing on inputs



(Wholly – owned subsidiary of NABARD)

- i. More than 100 Full-time Consultants**
- ii. Backed by 400 domain specialists**
- iii. Executed over 1700 assignments across India and in African and Asian Continents**
- iv. Core Competencies**
 - a. Preparation/Appraisals of DPRs**
 - b. Techno-feasibility study**
 - c. Baseline Surveys**
 - d. Project Management Consultancy**
 - e. Climate Issues and Green Funds**
 - f. Monitoring and Evaluation**
 - g. Impact Assessment Studies**
 - h. Third Party Monitoring of Infrastructural Projects**
 - i. Skills for Livelihood**
 - j. Capacity Building**
 - k. Accreditation of Rural Godowns**
 - l. Climate Change Issues**
 - m. CSR Facilitation**
 - n. IT in Rural Banks**

Pro - Services Rendered by NABCONS

No.	Name of Services	Description
1	Project Management Consultancy (PMC)	Entails provision of end-to-end solution, including assistance in statutory approvals, bid process management, issuing and evaluating tender documents and supervision over infrastructure projects like Mega Food Park, Rural Godowns, Cold Storage, etc. funded by Govt. or private entities.
2	Preparation of Detailed Project Report / Conduct / Techno-economic Feasibility	For various activities under agriculture, horticulture, forestry, fisheries, irrigation, animal husbandry, food processing activities, agri-infrastructure, climate issues, etc.
3	Third Party Monitoring (TPM) of Infrastructure Projects	TPM of various Govt.-funded infra projects to assess the level of compliance followed in execution. This also covers socio-economic impact evaluation.
4	Monitoring and Evaluation (M&E)	M & E is undertaken for various developmental schemes of Govt. of India and State Govts in the areas of agriculture, animal husbandry and all other socio-development sectors.
5	Training and Capacity Building	Training is imparted on forward markets, agriculture market infrastructure, rural godown, agri-financing, treasury and investment management for banks, etc.
6	Studies / Baseline Surveys	Baseline surveys are taken up for measuring impact of community investment made by public and private sector Companies. Studies are conduct on women, children, disadvantaged groups / regions, etc.
7	Livelihood Mapping	Livelihood mapping and analysis is done for identification of potential activities to be taken up by SHGs
8	International Visitors' Programme / International Exposure Visits	Entails organizing study tours / exposure for the visiting foreign delegates to their areas of interest such as watershed, micro-finance, fin-inclusion, cooperatives, projects appraisal, agro-processing, post-harvest technologies, farmers' clubs, etc.
9	Consultancy on Banking and Finance	Designing and execution of priority sector strategies, advisory services on Treasury and Investment Management for Banks, preparation of IT Policy, etc.
10	Transaction advisory	Transaction Advisory for setting up of Agri-mall, Silos & Cold Storages
11	Skills for Livelihood	Skilling of rural BPL youth and placement in the formal sector, monitoring skill initiatives of MORD, Govt. of India, facilitating access to credit for trainees, etc.
12	Accreditation of Godowns	Engaged by WDRA as Accreditation Agency for accrediting rural godowns.