

PROJECT REPORT

Of

COLD ROOM PROJECT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Cold Room Project**.

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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INTRODUCTION

In today's changing global climate scenario, which presents threats to sustainable food production, the need for conservation of resources becomes more relevant. It calls for sustainable and eco-friendly preservation techniques to prevent wastage and maximise utilisation

India is the largest producer of fruits and vegetables in the world scenario but the availability of fruits and vegetables per capita is significantly low because of Post Harvest losses which account for about 25% to 30% of production. Further, the quality of sizeable quantity of produces also deteriorates the moment it reaches the consumer. This happens because of perishable nature of the products. If consumption is not getting stabilized, the farmers switch over to other crops instead of going for one crop in the subsequent year, and cycle continues. Our farmers continue to remain poor even though they take risk to cultivate high value fruits and vegetables year after year. Introduction of Cold storage / Cold room facility will help them in removing the risk of distress sale and simultaneously will ensure better returns



A cold storage room is a great place to store fruits and vegetables, as well as other products, as they prolong the life and help prevent spoilage of foods. Cold Rooms are a great idea as they will keep items much cooler than regular room temperature. This makes cold storage rooms and cooler rooms refrigeration a great choice for storing perishable items. There are several benefits that these units provide, they are also beneficial for both personal and business use. Cold room storage is also essential for several other industries, including the storage of medical and chemical products. The horticulture industry also has a need for cold storage as plant and flower crops often have to be stored below room temperature.

OBJECTIVES

- ✓ To establish the small capacity of cool chamber / cold room in vegetable mandi / markets or in the field of farmers growing vegetables/fruits.
- ✓ To store the surplus amount of vegetables in daily market for selling the products later.
- ✓ To reduce the distress sale of the vegetables in the market.
- ✓ Farmers/Beneficiaries will get profit by selling the vegetables in the market in subsequent days.

NECESSITY OF COLD ROOM

In most of the cases the financial condition of the farmers/business man does not permit to establish a cold storage having capacity of 5000 MT or more to store products in the cold storage which require crores of Rupees to establish it.

The concept of cold room is to store vegetables, fruits, flowers and other commodities for shorter duration for which a small farmer/business man can store products for shorter period and sell it without deterioration of the product.

Farmers will also get appropriate value of the product. It will reduce the distress sale.

Since the investment of such cold room is low a farmer/Business man can easily establish a cold room to store his own surplus products or may provide storage facilities to the needed farmers/traders.

BASIC DESIGN 10MT COLD ROOM

Size(LXWXH)	15X10X8 FT3
Puf Panels	
Insulation Material	Puf
Puf Panel Finish	PP/PP
Insulation Thickness	60 MM
Floor insulation should be same of puf panel thickness	Puf Slabs
Cold room door	Overlap Type
Refrigeration machine in HP	3HP
Refrigeration machine in BTU/HR at Evap. Temp. -5 Deg and condensing temp 35 deg C	18000
Machine Quantity	1
Evaporator finish	Repainted
Evap. Fan size and quantity	12"/14"X3 No
Compressor Type	Hermetic
Compressor Model	CR-36
Refrigerant gas specification	R-22
Electrical power supply	220V/50HZ/01

VARIOUS COMPONENTS OF COLD ROOM

Cold Room Panel (PUF panel)	
Cold Room Door	
Compressor	
Condensing Unit	
Ceiling Unit Cooler	
Electric Control Panel	

Temperature requirement and life of storage for some of the most common/popular types of fruit and veg.

Produce Type	Optimum Temperature °C	Optimum humidity %	Storage life
Apples	1-4	90-95	Up to 12 months
Bananas	13-16	80-95	Up to 3 weeks
Berries (incl. Strawberries)	0	90-95	Blackberries and raspberries up to 3 days, strawberries and cherries up to 7 days
Grapes	0	85	Up to 8 weeks
Nectarines, plums and peaches	0	90-95	Up to 5 weeks
Pears	-1-0	90-95	Up to 7 months
Broccoli and cauliflower	0	95-100	Up to 4 weeks
Carrots, mature and immature	0	98-100	Mature, up to 9 months and immature up to 6 weeks
Onion, white and red	0	65-70	Up to 8 months
Lettuce	0	98-100	Up to 3 week

BREIF PROJECTED FINANCIALS

COLD ROOM PROJECT

PROJECT AT GLANCE

Name of the Beneficiary : XXXXX
Constitution : XXXXX
Name of Main Promotor : XXXXX
Proposed Project : XXXXX
Project Site : XXXXX
Land Area : 1000 Sq Ft.
Contact Info : XXXXX
Total Cost of Project : 21.40 Lacs
Bank Loan : 15.00 Lacs
Own margin : 6.40 Lacs

INVESTMENT REQUIRED

PARTICULARS	AMOUNT
Land (Owned/Leased)	Leased
Civil Work (400 Sq. Ft @600/-)	2.40
Cost of Machine/Cold Room/Equipments	11.50
Plastic Crates/Racks	4.00
DG Set/Electrical Etc	3.50
TOTAL	21.40

MEANS OF FINANCE

PARTICULARS	AMOUNT
Own Contribution	6.40
Term Loan from Bank	15.00
TOTAL	21.40

Capital Subsidy of Rs. 5.40 Lacs

COLD ROOM PROJECT

PROJECTED BALANCE SHEET

PARTICULARS		IYR	IIYR	IIIYR	IVYR	VYR
	Const. Period					
LIABILITIES						
Capital	6.40	6.40	6.40	6.40	6.40	6.40
Net Profit	-	0.92	3.70	8.45	15.01	23.21
General Reserve	-	5.40	5.40	5.40	5.40	5.40
Term Loan	15.00	12.00	9.00	6.00	3.00	-
Expenses Payable	-	0.60	0.66	0.73	0.80	0.88
TOTAL	21.40	25.32	25.16	26.97	30.60	35.89
ASSETS						
FIXED ASSETS/PLANT	21.40	21.40	21.40	21.40	21.40	21.40
Less Depreciation	-	2.97	5.51	7.67	9.53	11.11
	21.40	18.43	15.89	13.73	11.87	10.29
Capital Subsidy	-	5.40	5.40	5.40	5.40	5.40
CURRENT ASSETS						
Advances & Receivables	-	1.25	1.50	1.75	2.00	2.25
Cash & Bank Balance	-	0.24	2.36	6.10	11.33	17.95
TOTAL	21.40	25.32	25.16	26.97	30.60	35.89

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COLD ROOM PROJECT

CASH FUND FLOW STATEMENT

PARTICULARS	Const.	IYR	IIYR	IIIYR	IVYR	VYR
<u>SOURCES OF FUND</u>						
Incr. in Capital	6.40	-	-	-	-	-
Fund From operators	-	2.12	4.58	7.15	9.56	11.80
Incr. in Subsidy	-	5.40				
Incr. in Term Loan from	15.00	-	-	-	-	-
Depreciation	-	2.97	2.54	2.17	1.85	1.59
Incr. in Expenses Payable	-	0.60	0.06	0.07	0.07	0.08
Adjustment of Subsidy	-	-	-	-	-	-
TOTAL	21.40	11.09	7.17	9.38	11.49	13.47
<u>APPLICATION OF FUND</u>						
Incr. in Fixed Assets/Plant	21.40	-	-	-	-	-
Incr. in Subsidy	-	5.40	-	-	-	-
Incr. in Advances & Rece.	-	1.25	0.25	0.25	0.25	0.25
Rep. Loan of Bank Loan	-	3.00	3.00	3.00	3.00	3.00
Drawings	-	1.20	1.80	2.40	3.00	3.60
TOTAL	21.40	10.85	5.05	5.65	6.25	6.85
Opening Balance	-	-	0.24	2.36	6.10	11.33
Surplus	-	0.24	2.12	3.73	5.24	6.62
Closing Balance	-	0.24	2.36	6.10	11.33	17.95

COLD ROOM PROJECT

PROJECTED PROFITABILITY STATEMENT

<i>PARTICULARS</i>	<i>IYR</i>	<i>IIYR</i>	<i>IIIYR</i>	<i>IVYR</i>	<i>VYR</i>
<u>INCOME</u>					
Rental Income	15.00	18.00	21.00	24.00	27.00
Total	15.00	18.00	21.00	24.00	27.00
<u>EXPENDITURE</u>					
Power & Fuel Expenss	3.00	3.30	3.63	3.99	4.39
Consumables/Spares	0.75	0.90	1.05	1.20	1.35
Salary & Wages	3.43	3.78	4.15	4.57	5.02
Insurance	0.15	0.15	0.15	0.15	0.15
Repair & Maintainance	0.48	0.90	1.08	1.30	1.56
Admin. & Selling Exp.	0.45	0.54	0.63	0.72	0.81
Intt. On Term Loan	1.65	1.32	0.99	0.66	0.33
Depreciation	2.97	2.54	2.17	1.85	1.59
Total	12.88	13.42	13.85	14.44	15.20
NET PROFIT	2.12	4.58	7.15	9.56	11.80

COLD ROOM PROJECT

CALCULATION OF COST OF PRODUCTION

No of Chamber		2			
Capacity per Chamber		10	MT		
Total Capacity		20	MT		
No of Operational Day per annum		300			
Average rental per day		0.50	per Kg/Day		
Total Rental per Annum		30.00	Lacs		

CALCULATION OF SALE OF product

Year	Capacity Utilisation	Amount (in Lacs)
1 Yr	50%	15.00
II Yr	60%	18.00
III Yr	70%	21.00
IV Yr	80%	24.00
V Yr	90%	27.00

COLD ROOM PROJECT

DSCR CALCULATION

PARTICULARS	IYR	IIYR	IIIYR	IVYR	VYR
Net Profit	2.12	4.58	7.15	9.56	11.80
Add Depreciation	2.97	2.54	2.17	1.85	1.59
CASH ACCRUALS (A)	5.09	7.11	9.32	11.41	13.39
Add Interest	1.65	1.32	0.99	0.66	0.33
Total Fund	6.74	8.43	10.31	12.07	13.72
REPAYMENT					
Instalment of Loan	3.00	3.00	3.00	3.00	3.00
Interest On Loan	1.65	1.32	0.99	0.66	0.33
Total Payment Obligation (B)	4.65	4.32	3.99	3.66	3.33
D.S.C.R.	1.45	1.95	2.58	3.30	4.12
			2.57		

COLD ROOM PROJECT

DETAIL OF SALARY WAGES

Particular	Nos.	Salary Per Month	Total	Annual Salary
Marketing	1	10000.00	10000.00	1,20,000
Helpers/Labours	2	4000.00	8000.00	96,000
Accountant/Other	1	8000.00	8000.00	96,000
				<u>3,12,000</u>
		Add Fringe benefit @ 10%		<u>31,200</u>
Total Salary				3,43,200
In Lacs				3.43

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CALCULATION OF DEPRECIATION ON FIXED ASSETS

Year	PARTICULARS	LAND & SITE DEVPT.	RATS/OTHE PLANT & MACHINERY	CIVIL WORK	TOTAL	
Cost Peri	Addition during the year	Leased	7.50	11.50	2.40	21.40
	Add : Contingencies		-	-	-	-
I		-	7.50	11.50	2.40	21.40
	Less : Depreciation	-	1.13	1.73	0.12	2.97
II	WDV at the end of Ist Ye	-	6.38	9.78	2.28	18.43
	Less : Depreciation	-	0.96	1.47	0.11	2.54
III	WDV at the end of IIInd Y	-	5.42	8.31	2.17	15.89
	Addition	-	-	-	-	-
	Less : Depreciation	-	0.81	1.25	0.11	2.17
IV	WDV at the end of IIIrd Y	-	4.61	7.06	2.06	13.73
	Addition	-	-	-	-	-
	Less : Depreciation	-	0.69	1.06	0.10	1.85
V	WDV at the end of IVth Y	-	3.92	6.00	1.95	11.87
	Less : Depreciation	-	0.59	0.90	0.10	1.59
VI	WDV at the end of Vth Y	-	3.33	5.10	1.86	10.29
	Addition	-	-	-	-	-
	Less : Depreciation	-	0.50	0.77	0.09	1.36
VII	WDV at the end of VIth Y	-	2.83	4.34	1.76	8.93
				-	-	-

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TERM LOAN REPAYMENT SCHEDULE

Intt rate @11%

<i>Year</i>	<i>Particulars</i>	<i>Op. Balance</i>	<i>Interest</i>	<i>Total</i>	<i>Instalment</i>	<i>Total Repayment</i>	<i>Closing Balance</i>
I	Amount Borrowed	15.00					
II	Balance Carried down	15.00	1.65	16.65	3.00	4.65	12.00
III	Balance Carried down	12.00	1.32	13.32	3.00	4.32	9.00
IV	Balance Carried down	9.00	0.99	9.99	3.00	3.99	6.00
V	Balance Carried down	6.00	0.66	6.66	3.00	3.66	3.00
VI	Balance Carried down	3.00	0.33	3.33	3.00	3.33	-

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