COLD STORAGE REPORT

(Based on Online Research)

1. ***Introduction***

   Cold Storage Facility needs to be set up for Chocolate Philosophy to store and transport its Chocolates to various locations and also to other cities – Mumbai, Chennai, Kochi, and Bangalore

2. ***Market***

   - This Cold storage facility will be owned by Chocolate Philosophy to store their raw materials and chocolates.
   - This would also be shared along with other vendors willing to use the facility to store their products.

3. ***Storage capacity***

   - The material to be kept under cold storage is received from the Chocolate Philosophy Workshops.
   - It will be stacked and cooled to a temperature of minimum 8 degrees centigrade. The plant needs to be in continuous operation for three shifts a day with each shift of 8 hours duration.
   - The storage capacity of the unit is assumed to be 500 Metric Tonnes (5, 00, 000 Kgs.) The time period required for achieving full capacity utilization is assumed to be one year.

4. ***Rental revenue***

   At a rental value of Rs. 150 per ton per day the total sales revenue per annum (assuming the facility is available for 365 days) would be Rs. 2, 73, 75, 000 lakhs on full capacity utilisation.

5. ***Storage process outline***

   - The material received from the workshops will be weighed and placed in crates with a customer and material code tag.
   - The gross and net weights of the crate/sack will also be recorded.
   - Stacking will be in pallets.

6. ***Pollution control measures***

   Not necessary as there are no pollutants or effluents.

7. ***Energy conservation measures***

Common measures will do.

8. ***Land and construction cost for the proposed unit***

- Land 1.0 acre.
- Storage area is 10000 square feet as detailed below.

Sr. No	Particulars	Approx. Area Consumption (in sq. ft.)
1	Cold Storage Facility	8712 (20% of 1 Acre land)
2	Admin Office	300
3	Spares Store	150
4	Refrigeration room	2500
5	Toilet Space	150
6	Misc. Space	100
	Total	**11912 (27% of 1 Acre Land)**

9. ***Construction cost***

Approximate cost of construction (per sq. ft.) = Rs. 1400 – Rs. 1600

[Values based on online research]

Area of construction for 10 MT Cold Storage Facility = approx. 11912 sq. ft. (27% of 1 Acre Land)

Total Cost of Construction = Rs. 1500 * 11912 sq. ft. = Rs. 1, 78, 68, 000 (Rounded off to 1.78 Crore)

10. ***Costing of machinery and equipment*** (Approx. Values based on Online research)

Grand Total: Rs. 70 Lakhs (Approx.)

Sr. No.	Description	Rs. In Lakhs (Approx.)
1	Refrigeration Equipment for cooling products stored in 8000 sq. ft. area	30
2	Ducting and Wall Panelling	15
3	Standby Equipment	10
	Total	**55**
4	Cost of Pallets and Stacking Trays	5
5	Fork Lift Vehicle (Optional)	10
	Grand Total	**70**

11. ***Project Cost***

Sr. No.	Description	Rs. in Lakhs (Approx.)
1	Civil Works	100
2	Plant Machinery	50
3	Power Connection	1.5
4	Electrification	2
5	Erection and commissioning	3.5
6	Cost of machine spares	2
7	Cost of office equipment	1
8	Company formation expenses	0.1
9	Sales tax and registration expenses	0.2
10	Contingencies	1
11	Working Capital	2
	Total	**163.3**

12. ***Working Capital Requirements per month***

Sr. No.	Description	No. Of Persons	Total Sal / Month (Rs. in Lakhs)
1	Refrigeration Engineer	1	0.150
2	Refrigeration Mechanics	3	0.300
3	Plant Mechanics	3	0.300
4	Skilled Workers	3	0.180
5	Unskilled Workers	20	0.600
6	Administrative Staffs	2	0.200
7	Security Staff	4	0.160
	Total	**36**	**1.890**

13. ***Utilities per month***

Sr. No.	Description	Rs. in Lakhs
1	Power 120000 kwh @ Rs. 5.50 per unit	6.600
2	Water	0.100
3	Refrigeration Gas	1.500
	Total	**8.200**

14. ***Total Working Capital per month***

Sr. No.	Description	Rs. in Lakhs
1	Salaries and Wages	3
2	Raw Materials and Packaging	0
3	Utilities	6
4	Contingent Expenses	1
	Total	**10**

15. ***Turnover Per Year***

Sr. No.	Description	Quantity (in Metric Tonnes)	Rate/Tonne (Rs.)	Rs. in Lakhs
1	Cold Storage Facility	500	150	2.73