Detailed Project Report

MILK DIARY WITH CHILLING UNIT

By

2023

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1. OVERVIEW OF THE JLG MEMBERS

Name of the JLG:

Number of the members.

Name of Gram Panchayat/Taluk:

Name of the District:

Account details of JLG:

Details of JLG members with Hierarchy;

1.

2.

3.

4.

5.

6.

KYC:

Aadhar/PAN/Photo:

Milk Dairy with chilling refers to a method of milk production in which dairy farmers use refrigeration or chilling technology to maintain the quality and freshness of the milk produced on the farm. This process involves cooling the milk immediately after milking to prevent bacterial growth and maintain its quality.

2. OBJECTIVES OF SVSY

Under Yuva Niti 2022, the new Swami Vivekananda Yuva Shakti Yojana is proposed on the following grounds to achieve holistic development of 2.1 crore youth of the state and to bring about constructive social change by the youth in keeping with the India@2047 vision of the Hon'ble Prime Minister.

The current scenario of the state on various parameters is as follows:

i. **Political Representation:** Out of total 1,01,308 members in rural local bodies, 12,411 (12.25 per cent) youths and 360 youths (5.36 per cent) out of 6713 municipal councillors are political representatives.
ii. **Education:** Out of a total of 2.1 crore youth, 21.55 lakh (10.37 per cent) students are in high school, 11.75 lakh (5.65 per cent), 6.45 lakh (3.10 per cent) in general degree colleges, 1.51 lakh (2.72 per cent), 1.11 lakh in polytechnics. (0.53 per cent), 0.74 lakh (0.36 per cent) The total number of students studying in medical courses is 43.12 lakh, which is per cent of the total youth. 21 percent will be. Remaining 157.88 lakh youth have below 10th standard education.
iii. **Employment:** According to the National Skill Development Corporation report, out of the total 2.1 crore youth in the state, 82 lakh (41 per cent) youth are in the labour

force. As the remaining 119 lakh youth (59 per cent) are not in the professional labour force, they need to be given skill training to make them self-reliant.

iv. **Skill Development:** Out of the total 82 lakh youth in the workforce, 16 lakh youth (20 per cent) have received skill vocational training. The remaining 66 lakh (80 percent) youth need to be given skill development training. Out of this, only one lakh youth are being trained by the NLRM department every year. Therefore 65 lakh untrained rural youth need skill training. To achieve this every school needs to provide vocational education from class 6 onwards.

v. **Internship:** According to the 6th Economic Census, there are a total of 28.80 lakh enterprises in the state, out of which 78,022 enterprises employ more than 8 people. About 30 lakh youths can be trained in skills by undertaking the internship program for a period of three months in local industries related to agriculture and agri-based/MSME/self-employment/service sector.

vi. **Migration Control:** Rural people have migrated from various districts to urban areas for job opportunities, of which 40 lakh (20 percent) youth are in Bangalore city. Therefore, there is a need to provide more employment opportunities at the village level.

vii. **Consolidation of programs for rural employment:** In total there are 27,395 revenue villages in the state and it is proposed to form Swami Vivekananda Self Help Groups, one in each village, on the model of Women's Self-Help Groups to provide self-employment to the unorganized workers in these. There are about 15 to 20 youth in each group, and 5.50 lakh youth in 27,395 self-help groups have

received Rs. 1.5 lakh to provide margin money estimated at Rs. 410 crores will be required.

viii. **Bank Linked Schemes:** Coordination and inclusion of Yuva Shakti schemes with schemes linked to 25 banks. There are 35000 shelves of projects under the Mudra loan scheme, and steps will be taken to select the financial activities of the self-help societies based on these models.

ix. **Training:** Skill development training will be imparted to the youth under the National Entrepreneurship Mission under the 18 programs being implemented by various departments under this scheme. Training for agriculture and other activities will be provided through the Rural Development Self Employment Training Institute (RUDSETI).

x. **Formation of State Level Committee:** It is proposed to constitute a committee under the chairmanship of the Minister of Youth Empowerment and Sports at the State level for implementation and monitoring of the programme. RDPR, Commerce and Industry, Labour, Skill Development and Bank representatives will be members of this committee.

xi. **District Level Committee:** It is proposed to constitute a District Level Committee under the Chairmanship of the Chief Executive Officer of the Zilla Panchayat for the implementation and supervision of the program at the district level. The members of this committee are the officers of Rural Development and Panchayat Raj, Commerce and Industry, Labour, Skill Development Departments and District Lead Bank Managers.

xii. **Village level stewardship:** The village level stewardship of this program will be handled by Rural Development and Panchayat Raj Departments and Youth Empowerment and Sports Departments.

3. ABOUT VKF

VKF is a Think Tank of Community Change Champions who are from various walks of Social Spaces with diverse backgrounds and specialists from their domains.

VKF is a platform that enables as a think tank to evolve an aggregation of the social impact service providers and entrepreneurs for bringing about a transformational movement of social Change that is measurable on the lines of the Strategic Sustainable Development Goals (SSDG) of United Nation (UN).

VKF's is primarily focused on the development of Karnataka state in collaboration and co-creation initiatives.

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VKF's strong focus is on enhancing the rural mass entrepreneurship development clubbed with rural livelihood options. In this direction, VKF team is working with the rural livelihood SHGs members and handholding them to elevate themselves to newer socio-economic status and uplifting the whole geography of the cluster by setting up of CFCs.

VKF's experience spans across conceptualizing cluster mapping, conducting baseline surveys, awareness creation, trust building activities, capacity building, design thinking activities etc., to enhance capabilities of the artisans and livelihood SHGs in the clusters.

VKF also indulges in facilitating Common Facility Centres, Preparation of DPR, Govt. liaising, market linkage activities, brand awareness, branding initiatives, value addition of the products produced by clusters etc. In this, regards we have collaborated and working with MSME, ESTC, IDEMI, Tribes India, NRLM and WCD to support rural masses in terms upgrading their livelihood opportunities.

4. NAME OF PRODUCT AND TECHNOLOGY

MILK DIARY WITH CHILLING UNIT

Karnataka is one of the top milk-producing states in India, with a strong dairy industry and a large number of milk producers. As a result, there are many milk chilling units located across the state to support the dairy industry and provide milk processing services to farmers and producers. Collection, storing, and chilling units are important components of the milk processing chain. These units are responsible for collecting raw milk, storing the milk in a safe and hygienic manner, and chilling the milk to preserve its freshness and quality. These units are designed to maintain a consistent temperature and protect the milk from contamination. Milk storage tanks can be made

of stainless steel or other materials, and they may have refrigeration systems to keep the milk cool.

5. DELIVERABLES AND MARKET OF THE PRODUCT

- **Chilled Raw Milk**: One of the primary products of a milk chilling unit is chilled raw milk. This is typically produced by rapidly reducing the temperature of raw milk to below 4°C, which helps to preserve the milk's freshness and quality.
- **Pasteurized Milk**: Milk chilling units may also have pasteurization equipment, which is used to heat the milk to a specific temperature for a set amount of time to kill harmful bacteria.
- **Milk Powder**: Another common product of a milk chilling unit is milk powder, which is made by drying liquid milk.
- **Flavoured Milk**: Milk chilling units may also produce flavoured milk products, which can be made by adding various flavourings, such as chocolate, strawberry, or vanilla, to the milk.

Project Assumptions:

This model DPR for Diary Farming with Chilling Unit is basically on certain assumptions that may vary with capacity, location, raw materials availability etc. An entrepreneur can use this model DPR format and modify as per requirement and suitability. The assumptions made in preparation of this particular DPR are given in Table. Therefore, land and civil infrastructures are assumed as already available with the entrepreneur.

Table: Detailed Project Assumptions		
Parameter	Value	
Assumed Capacity of the Milk Diary with Chilling unit:	500 liters per day	
Utilization of capacity:	Year 1	50%
	Year 2	55%
	Year 3	60%
	Year 4	65%
	Year 5 ONWARDS	70%
Working days per year:	300 days	
Working hours per day:	8-10 hours	
Average price of raw material:	Rs. 35/litre	
Average sale price of product	Rs. 55/litre	

Machineries

Milk Chiller 500 LTR
Ice energy storage capacity: 70 MJ
Kalair Engineering Co.
Vishnu Garden, Delhi

Machinery is also available in Bengaluru and Coimbatore.

Market Output:

VKF will hand hold them to facilitating better packing and market linkage.

Market Linkage	
❖ Processing Plant	❖ Export Markets
❖ Retail Stores	❖ Food Service Providers

6. ROLE OF EACH OF THE JLG MEMBERS

How JLG will participate:

- 2 persons will be used to procurement of raw materials
- 4 persons for production
- 3 persons for the logistics & sales
- 1 person on monitoring process

7. SOFT INTERVENTION

The following are the soft interventions to be arranged:

- Awareness on financial inclusion will help in getting the assistance from Government and other sources
- Export promotional orientation for the JLG members.

- Awareness/ training programme on product quality, handling practices.
- Capacity Building activity
- Trust Building activities
- Programmes on technical skill enhancement to unit owners.
- Programmes on Business and entrepreneurship skill enhancement to unit owners
- Mass entrepreneurship development program in the JLG eco system.

8. ESTIMATED COST OF THE PROJECT AND THE IMPLEMENTATION SCHEDULE

The proposed cost of the project is as follows:

Sl. No.	Details	Cost in Rs.	Percentage
1	Bank Loan	4,27,500	90%
2	JLG contribution	42,750	10%
3	**Total**	**4,70,250**	**100%**

Sl. No.	Details	Cost in Rs.
1	Machine Cost	2,70,250
2	Furniture	50,000

3	Working capital (Shed deposit, electric connection deposit, Miscellaneous and preoperative expenses)	1,50,000
	TOTAL	**4,70,250**

The proposed project implementation schedule is as follows:

Sl. No.	**Project Component**	**Schedule**
1	Shed for the project on rental basis	Identified
2	Electricity and Water facility Installation	Present
3	Arrival of Machinery	Within 1 months of Order
4	Erection of Machinery	Within 5 days of arrival
5	Commissioning	Within 2-4 days of erection
6	Commercial Usage	Within 2 months from approval

9. LAND/SHED STATUS:

The JLG has already identified the shed required for the project within the project area.

10. SWOT ANALYSIS OF THE PROJECT

I. Strengths

- Growing awareness among entrepreneurs about the need for modernization, managerial and technical skill.
- A dairy farming chilling unit is designed to preserve milk by maintaining its freshness and nutritional value. This is a key strength of the unit as it ensures that the milk produced by the farm can be transported and sold to various locations without compromising its quality.
- With the help of modern equipment and technology, a dairy farming chilling unit can ensure that the milk is always stored at optimal temperature, reducing the likelihood of spoilage or deterioration. This helps in maintaining the consistent quality of milk throughout the year.
- A dairy farming chilling unit can help farmers save money by reducing the amount of milk that gets spoiled or goes to waste, which in turn leads to a reduction in overall costs.

II. Weaknesses

- The functioning of a dairy farming chilling unit depends heavily on a stable power supply. Any disruptions to the power supply can lead to spoilage of the milk, leading to financial losses for the farm.
- The equipment used in a dairy farming chilling unit can be expensive to maintain and repair, which can increase the operational costs for the farm.

- The initial investment required to set up a dairy farming chilling unit can be high, which may be a barrier to entry for some farmers.

III. Opportunities

- With the growing population, the demand for dairy products is also increasing. A dairy farming chilling unit can help farmers meet this demand by enabling them to store and transport milk to different markets.
- A dairy farming chilling unit can also help farmers diversify their product portfolio by enabling them to produce other dairy products such as cheese, butter, and yogurt.
- A dairy farming chilling unit can enable farmers to expand their reach beyond their local markets and explore export opportunities to other countries.

IV. Threats

- The dairy industry is highly competitive, and there are several other dairy farms and chilling units in the market. This can lead to price wars and a reduction in profit margins for individual farmers.
- The prices of milk can be volatile and subject to fluctuations based on supply and demand. This can impact the profitability of dairy farms, especially those that are small and do not have the resources to weather such fluctuations.
- The dairy industry is subject to several regulations and standards that farmers must adhere to. Non-compliance can lead to fines and legal issues, which can be detrimental to the success of a dairy farming chilling unit.

11. YOUTH EMPOWERMENT IMPACT OF THE PROJECT ON ECOSYSTEM

We have surplus youths in the state, graduate, undergraduate etc. supporting them to create self-employment will motivate to become entrepreneurs, they will live independent life**.**

Entrepreneurship will greatly impact the lifestyle of the youths, if businesses work along with their involvement of all the members towards creating awareness and promoting positive impacts on others.

Ecosystem Support from Project

- **Reduced Energy Consumption:** Chilling the milk immediately after milking reduces the need for energy-intensive cooling and preservation methods. This reduces the overall energy consumption and associated greenhouse gas emissions.
- **Efficient Use of Resources**: By preserving the quality of milk through chilling, the farmers can produce high-quality milk that can be sold at a premium price. This improves the efficient use of resources such as water, energy, and feed.
- **Reduced Milk Waste**: Chilling the milk can reduce the likelihood of spoilage and waste, leading to less milk waste and associated environmental impacts. This can also result in a reduction in greenhouse gas emissions, which are produced during the decomposition of organic waste.

- **Improved Water Management**: Dairy farming with chilling can improve water management by reducing the amount of water required to clean equipment and facilities. This can help to conserve water resources and reduce the environmental impact of dairy farming.

12. THE END PRODUCTS PRODUCED FROM THE MACHINE

13. FINANCIALS

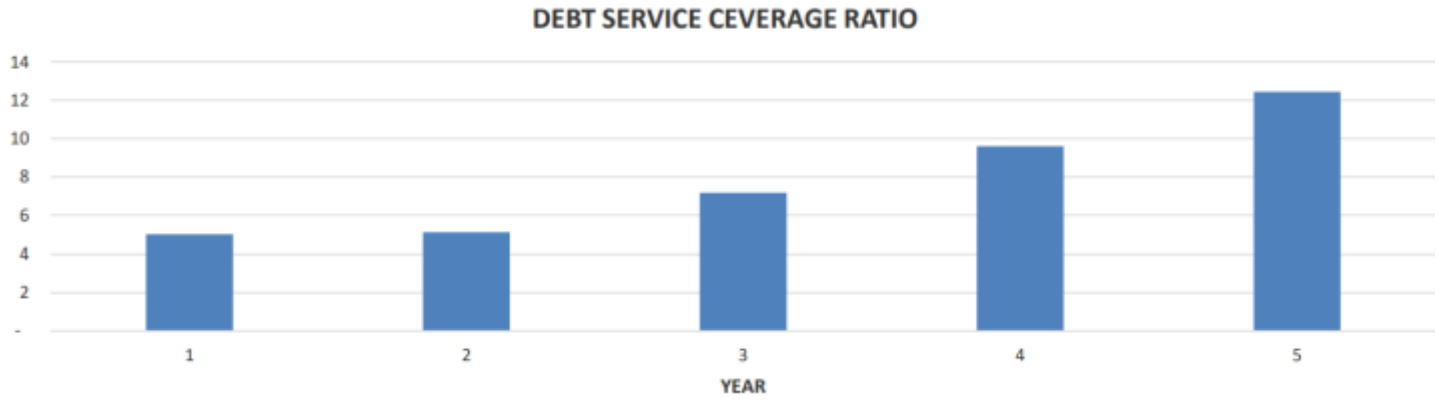
CASH FLOW STATEMENT

Particulars \ Year	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF MILK DAIRY WITH CHILLING UNIT					
No. of working days in a Year	300	300	300	300	300
Less : Days for off Season	-	-	-	-	-
No. of Machine Running days in a Year	300	300	300	300	300
Capacity of the machine in Ltrs per day	500	500	500	500	500
Production in ltrs	100%	100%	100%	100%	100%
Utilisation of the Capacity (%)	50%	55%	60%	65%	70%
No of ltrs Produced in a year	75,000	82,500	90,000	97,500	1,05,000
Rate per Litre	55	61	67	73	81
Gross Revenue earned per annum - A	**41,25,000**	**49,91,250**	**59,89,500**	**71,37,488**	**84,55,178**
COST OF RAW MATERIALS					
Consumption of Raw Materials	75,000	82,500	90,000	97,500	1,05,000
Rate per Ltrs	35	39	42	47	51
Total Cost of Raw Material per annum - B	**26,25,000**	**31,76,250**	**38,11,500**	**45,42,038**	**53,80,568**
EXPENDITURE					
Salaries and Wages	7,20,000	7,92,000	8,71,200	9,58,320	10,54,152
Electricity Charges	96,000	1,05,600	1,16,160	1,27,776	1,40,554
Transportation and Travelling	72,000	79,200	87,120	95,832	1,05,415
Rent	1,32,000	1,45,200	1,59,720	1,75,692	1,93,261
Packaging and Promotion Expenses	60,000	66,000	72,600	79,860	87,846
Miscellaneous Expensess	25,000	27,500	30,250	33,275	36,603
Total Expenditure - C	**11,05,000**	**12,15,500**	**13,37,050**	**14,70,755**	**16,17,831**
Net Profit before Interest /Cash Flow (A-B-C)	**3,95,000**	**5,99,500**	**8,40,950**	**11,24,695**	**14,56,780**

DSCR STATEMENT

PROJECTED TERM LOAN DSCR STATEMENT

	Year 1	Year 2	Year 3	Year 4	Year 5
	Projected	Projected	Projected	Projected	Projected
Profit available to service the debt	**3,95,000**	**5,99,500**	**8,40,950**	**11,24,695**	**14,56,780**
Loan Repayment	39,018	83,799	92,116	1,01,258	1,11,308
Interest on Term Loan	39,847	33,319	25,002	15,860	5,811
Debt to be Served	**78,866**	**1,17,119**	**1,17,119**	**1,17,119**	**1,17,119**
Debt Service Coverage Ratio	5	5	7	10	12
AVERAGE DSCR	**8**				



BREAKEVEN ANALYSIS

Investment Value Including Margin Rs. 475000

Year ended	Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected	Year 5 Projected
Cash Flow as per Statement of Income	3,95,000	5,99,500	8,40,950	11,24,695	14,56,780
Less : Interest on Loan	39,847	33,319	25,002	15,860	5,811
Less : Estimated Drawings/Personal Expenses	1,97,500	2,99,750	4,20,475	5,62,348	7,28,390
Net Cash Flow	**1,57,653**	**2,66,431**	**3,95,473**	**5,46,487**	**7,22,579**
Cumulative Cash Flow	**1,57,653**	**4,24,083**	**8,19,556**	**13,66,043**	**20,88,622**
Break Even Investment (in years)			**2 Year and 1.5 Months**		

REPAYMENT

DETAIL REPAYMENT SCHEDULE

Year	Quarter	Loan Installment	Principal Payment	Loan Outstanding	Interest at 9.5%	Cumulative Interest
1	1	10,153	-	4,27,500	10,153	
	2	10,153	-	4,27,500	10,153	
	3	29,280	19,278	4,08,222	10,001	
	4	29,280	19,740	3,88,482	9,540	39,847
2	1	29,280	20,212	3,68,269	9,067	
	2	29,280	20,696	3,47,573	8,583	
	3	29,280	21,192	3,26,382	8,088	
	4	29,280	21,699	3,04,683	7,581	33,319
3	1	29,280	22,218	2,82,464	7,061	
	2	29,280	22,750	2,59,714	6,529	
	3	29,280	23,295	2,36,419	5,985	
	4	29,280	23,853	2,12,566	5,427	25,002
4	1	29,280	24,424	1,88,143	4,856	
	2	29,280	25,008	1,63,135	4,271	
	3	29,280	25,607	1,37,528	3,673	
	4	29,280	26,220	1,11,308	3,060	15,860
5	1	29,280	26,848	84,461	2,432	
	2	29,280	27,490	56,970	1,789	
	3	29,280	28,148	28,822	1,131	
	4	29,280	28,822	0	458	5,811
Total		**5,47,340**	**4,27,500**		**1,19,840**	**1,19,840**

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