DETAILED PROJECT REPORT

Sunflower Oil Extraction

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:

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 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 Common Facility Centres.

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 working with MSME, ESTC, IDEMI, Tribes India, NRLM and WCD to support rural masses in terms upgrading their livelihood opportunities. It also facilitates in preparation of DPR, Govt. liaising, market linkage activities, brand awareness, branding initiatives, value addition of the products produced by clusters etc.

4. NAME OF PRODUCT AND TECHNOLOGY

Sunflower Oil Extraction

Sunflower oil extraction is the process of extracting oil from sunflower seeds. Sunflower oil is commonly used in food as frying and in cosmetics formulations as an emollient. Because sunflower oil is primarily composed of less-stable

polyunsaturated and monounsaturated fatty acids, it can be particularly susceptible to degradation by heat, air, and light, which trigger and accelerate oxidation. Keeping sunflower oil at low temperatures during manufacture and storage can help minimize rancidity and nutrient loss, as can storage in bottles that are made of either darkly-colored glass, or, plastic that has been treated with an ultraviolet light protectant.

Two varieties of safflower oil are available: high-linoleic and high-oleic. High-linoleic safflower oil is rich in polyunsaturated fats, while high-oleic safflower oil contains more monounsaturated fats.

The more common type of safflower oil on the market is the high-oleic kind. It is used as heat-stable cooking oil, especially for fried foods like French fries and chips. This is because safflower oil has a high smoke point of around 450 °F (232°C). In fact, safflower oil has a higher smoke point than other commonly used oils, such as canola oil.

The benefits of using a sunflower oil extraction machine include:

Increased efficiency: Sunflower oil extraction machines can extract oil from large quantities of sunflower seeds in a short amount of time, increasing overall efficiency and productivity.

Improved oil quality: Sunflower oil extraction machines are designed to produce high-quality oil that is free of impurities and contaminants.

Cost savings: By using a sunflower oil extraction machine, it is possible to reduce labor costs and minimize waste, leading to significant cost savings over time.

Versatility: Sunflower oil extraction machines can be used to extract oil from a variety of oilseeds, including sunflowers, soybeans, canola, and others, making them a versatile option for oil production.

Increased profitability: By producing high-quality oil at a lower cost, sunflower oil extraction machines can help to increase profitability for oil producers and processors.

5. DELIVERABLES AND MARKET OF THE PRODUCT

Sunflower oil extraction refers to the process of extracting oil from sunflower seeds. The main deliverables of sunflower oil extraction include sunflower oil and sunflower meal (a by-product of the extraction process).

Sunflower oil is popular cooking oil and is used in a variety of food products, such as salad dressings, margarine, and mayonnaise. It is also used for frying and in the production of biodiesel. Sunflower oil is valued for its mild flavor and high levels of polyunsaturated fats, which are essential for human health.

The demand for sunflower oil is expected to increase in the coming years, due to its health benefits and growing popularity as cooking oil

Project Assumptions:

This model DPR for Jaggery Processing 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 below. Therefore, land and civil infrastructures are assumed as already available with the entrepreneur.

Table: Detailed Project Assumptions		
Parameter	Value	
Assumed Capacity of the sunflower oil extraction :	50kg/hr	
Utilization of capacity:	Year 1	60%
	Year 2	65%
	Year 3	70%
	Year 4	75%
	Year 5	80%
Working days per year:	150 days	
Working hours per day:	8-10 hours	
Average price of raw material:	Rs. 65/ kg	
Average sale price of product	Rs. 170/ litre	

Machineries

Sunflower oil machine
Karamadai, Coimbatore, Tamil Nadu
Capacity: 20kg/hr.

Note: Dealers are available at Bengaluru for all the above machineries.

Market Linkage	
❖ **Hyper marts**	❖ **Super markets**
❖ **Restaurants**	❖ **Departmental stores**
❖ **Hotels**	❖ **Retailers**
❖ **E-commerce**	❖ **Grocery stores**

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 person for the logistics & sales
- 1 person on training and 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 & entrepreneurship skill enhancement to unit owners.
- Mass entrepreneurship development program in the JLG eco system.

8. BREAK UP COST AND MARGIN OF THE PROJECT AND THE IMPLEMENTATION SCHEDULE

The proposed cost of the project is as follows:

Sl. No.	Details	Cost in Rs.
1	Bank Loan	3,82,500
2	JLG contribution	42,500
3	**Total**	**4,25,000**

Sl. No.	Details	Cost in Rs
1.	Machine cost	2,80,000
2.	Furniture	20,000

3.	Working capital (Shed deposit, electric connection deposit, Miscellaneous and preoperative expenses)	1,25,000
	Total	**4,25,000**

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. Strength

- Growing awareness among entrepreneurs about the need for modernization, managerial and technical skill.
- Higher export potential.
- Sunflower oil is widely used in cooking, cosmetics, and other industries due to its health benefits and light taste, leading to a high demand for the product.

II. Weakness

- The sunflower oil extraction process is competitive, with many players in the market, leading to low profit margins for producers.
- The JLG members are unable to purchase modern machineries due to financial limitations.
- Sunflowers are seasonal crops, which can impact the availability and price of the raw material for oil extraction.

III. Opportunities

- As research continues, new uses for sunflower oil may be discovered, providing additional opportunities for growth.

- There is potential to expand into new international markets as the demand for sunflower oil continues to grow.
- There will be a huge demand because this is a need of the hour globally.

IV. Threats

- Sunflower oil faces competition from other oils, such as palm and soybean oil, which may impact its market share.
- The price of sunflower oil is subject to fluctuations in the global commodity markets, which can impact the profitability of the business.

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.

12. THE END PRODUCTS PRODUCED FROM THE MACHINE

Fig: Sunflower oil and meal

13. FINANCIALS

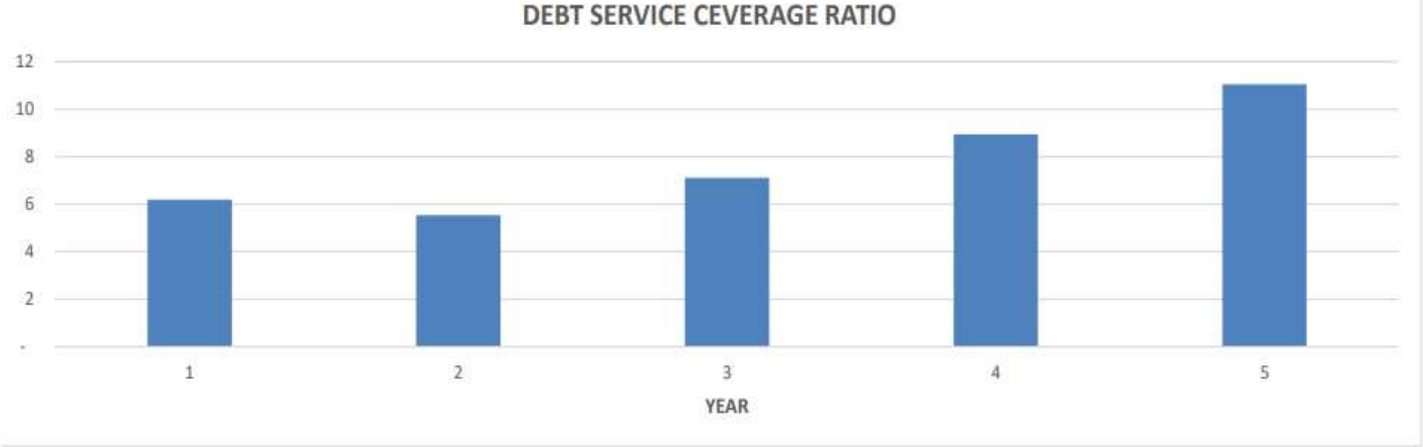
CASH FLOW STATEMENT

Particulars / Year	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF OIL					
No. of working days in a Year	300	300	300	300	300
Less : Days for off Season	150	150	150	150	150
No. of Machine Running days in a Year	150	150	150	150	150
Capacity of the machine in kgs (50 kg per hr)	400	400	400	400	400
Production in ltrs	60%	60%	60%	60%	60%
Utilisation of the Capacity (%)	60%	65%	70%	75%	80%
No of ltrs Produced in a year	21,600	23,400	25,200	27,000	28,800
Rate per Litre	170	187	206	226	249
Gross Revenue earned per annum - A	**36,72,000**	**43,75,800**	**51,83,640**	**61,09,290**	**71,68,234**
REVENUE FROM SALE OF WASTE					
No. of Machine Running days in a Year	150	150	150	150	150
Capacity of the machine in kgs (50 kg per hr)	400	400	400	400	400
Utilisation of the Capacity (%)	60%	65%	70%	75%	80%
Cattle Feeds (Waste) in %	40%	40%	40%	40%	40%
Cattle Feeds (Waste) in kgs	14,400	15,600	16,800	18,000	19,200
rate per kg	5	6	6	7	7
Gross Revenue earned per annum - B	**72,000**	**85,800**	**1,01,640**	**1,19,790**	**1,40,554**
COST OF RAW MATERIALS					
Consumption of Raw Materials	36,000	39,000	42,000	45,000	48,000
rate per kg	65	72	79	87	95
Total Cost of Raw Material per annum - C	**23,40,000**	**27,88,500**	**33,03,300**	**38,93,175**	**45,67,992**
EXPENDITURE					
Salaries and Wages	5,88,000	6,76,200	7,77,630	8,94,275	10,28,416
Electricity Charges	1,08,000	1,18,800	1,30,680	1,43,748	1,58,123
Other Manufacturing Expenses	36,000	39,600	43,560	47,916	52,708
Transportation and Travelling	30,000	33,000	36,300	39,930	43,923
Rent	1,32,000	1,45,200	1,59,720	1,75,692	1,93,261
Packaging and Promotion Expenses	25,000	27,500	30,250	33,275	36,603
Miscellaneous Expensess	48,000	52,800	58,080	63,888	70,277
Total Expenditure - D	**9,67,000**	**10,93,100**	**12,36,220**	**13,98,724**	**15,83,310**
Net Profit before Interest /Cash Flow (A+B-C-D)	**4,37,000**	**5,80,000**	**7,45,760**	**9,37,182**	**11,57,486**

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	**4,37,000**	**5,80,000**	**7,45,760**	**9,37,182**	**11,57,486**
Loan Repayment	34,911	74,978	82,420	90,600	99,591
Interest on Term Loan	35,653	29,812	22,371	14,191	5,199
Debt to be Served	**70,564**	**1,04,790**	**1,04,790**	**1,04,790**	**1,04,790**
Debt Service Coverage Ratio	6	6	7	9	11
AVERAGE DSCR	**8**				



BREAKEVEN ANALYSIS

Investment Value Including Margin Rs. 425000

Year ended	Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected	Year 5 Projected
Cash Flow as per Statement of Income	4,37,000	5,80,000	7,45,760	9,37,182	11,57,486
Less : Interest on Loan	35,653	29,812	22,371	14,191	5,199
Less : Estimated Drawings/Personal Expenses	2,18,500	2,90,000	3,72,880	4,68,591	5,78,743
Net Cash Flow	**1,82,847**	**2,60,188**	**3,50,509**	**4,54,400**	**5,73,544**
Cumulative Cash Flow	**1,82,847**	**4,43,035**	**7,93,544**	**12,47,944**	**18,21,488**
Break Even Investment (in years)	**1 Year and 11.2 Months**				


REPAYMENT SCHEDULE

DETAIL REPAYMENT SCHEDULE

Year	Quarter	Loan Installment	Principal Payment	Loan Outstanding	Interest at 9.5%	Cumulative Interest
1	1	9,084	-	3,82,500	9,084	
	2	9,084	-	3,82,500	9,084	
	3	26,198	17,249	3,65,251	8,949	
	4	26,198	17,662	3,47,589	8,536	35,653
2	1	26,198	18,085	3,29,504	8,113	
	2	26,198	18,518	3,10,987	7,680	
	3	26,198	18,961	2,92,026	7,237	
	4	26,198	19,415	2,72,611	6,783	29,812
3	1	26,198	19,880	2,52,731	6,318	
	2	26,198	20,356	2,32,376	5,842	
	3	26,198	20,843	2,11,533	5,355	
	4	26,198	21,342	1,90,191	4,856	22,371
4	1	26,198	21,853	1,68,338	4,345	
	2	26,198	22,376	1,45,963	3,822	
	3	26,198	22,911	1,23,051	3,286	
	4	26,198	23,460	99,591	2,738	14,191
5	1	26,198	24,021	75,570	2,176	
	2	26,198	24,596	50,973	1,601	
	3	26,198	25,185	25,788	1,012	
	4	26,198	25,788	-	409	5,199
Total		**4,89,725**	**3,82,500**		**1,07,225**	**1,07,225**

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