



DETAILED PROJECT REPORT

JAGGERY PROCESSING PLANT



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

Jaggery Processing unit

Jaggery is a natural, traditional sweetener made by the concentration of sugarcane juice and is known all over the world in different local names. More than 70% of the total world's jaggery production is done in India. It is popularly known as the "medicinal sugar" and is nutritionally comparable with honey." It is a traditional unrefined non-centrifugal sugar consumed in Asia, Africa, Latin America and the Caribbean. Sugarcane is produced in a large amount in the country and India stands at the 2nd position among all countries in the world in sugarcane production in which the country exports more than 28 Lakhs Tons of sugarcane every year. Karnataka contributes more than 10% in total sugarcane production of the country. The average cultivation of sugarcane in Karnataka stands at 48.96 million tones and is ranked fifth in the country and ranked 2nd in terms of productivity. The main sugarcane growing district are Belgaum (43%), Bagalkot (16 %), Bijapur (10 %), Mandya (5 %), Mysore (4 %) and Bidar also.

Containing all the minerals and vitamins present in sugarcane juice, it is considered the healthiest sugar in the world. India is world's largest producer of sugarcane.

5. DELIVERABLES AND MARKET OF THE PRODUCT

- **Sweetening agent:** Jaggery is used as a sweetener in various recipes, including desserts, sweets, and even savory dishes.



- **Aromatic flavor:** Jaggery has a rich, caramel-like flavor that enhances the taste and aroma of the dishes it is added to.
- **Nutritional value:** Unlike refined sugar, jaggery retains its natural minerals and is considered a healthier alternative. It is a good source of iron, magnesium, and potassium.
- **Glycemic control:** Jaggery has a lower glycemic index, which means it doesn't cause spikes in blood sugar levels like refined sugar.
- **Ayurveda medicine:** Jaggery is used in Ayurveda medicine for its various health benefits, such as aiding digestion and boosting immunity.
- **Versatile ingredient:** Jaggery can be used in a variety of dishes, including sweets, savory dishes, and even beverages.

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 Jaggery processing unit:	4000 L/yr	



Utilization of capacity:	Year 1	50%
	Year 2	60%
	Year 3	65%
	Year 4	70%
	Year 5	75%
Working days per year:	150 days	
Working hours per day:	8-10 hours	
Average price of raw material:	Rs. 8-10/ kg	
Average sale price of product	Rs. 60-80/ kg	

Machineries

Sugarcane crusher
Crushing capacity: 150 kgs yield > 750 ml/kg
Price: 47,000/-
Material: SS
Supplier: Akshar Enterprises
Location: Gujarat



Storage tank
Capacity: 250 L
Price: 50,000/-
Material: SS
Supplier: Swastika Engineering Works
Location: Mumbai



Sugarcane juice filtration
Capacity: 1000 L
Price: 75,000/-
Material: SS
Supplier: Pure Tech Filters
Location: Coimbatore





Sugarcane juice boiler
Capacity: 1000L
Price: 75,000
Material: SS
Supplier: Good one processing engineers LLP
Location: Pune, Maharashtra

Jaggery Molds
Capacity: 250 grams & 500 grams
Price: 7750/ set & 7500/set
Total molds: 4 Sets
Material: Wooden
Supplier: Patel Manufacturing Company
Location: Gujarat



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

<u>Market Linkage</u>	
❖ Ayurvedic Industry	❖ Super markets
❖ Restaurants	❖ Departmental stores
❖ Hotels	❖ Bakeries and confectioneries
❖ Sweet shops	❖ 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	4,27,500



2	JLG contribution	47,500
3	Total	4,75,000

Sl. No.	Details	Cost in Rs
1.	Machine cost	3,15,000
2.	Furniture	40,000
3.	Working capital (Shed deposit, electric connection deposit, Miscellaneous and preoperative expenses)	1,20,000
	Total	4,75,000

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.
- Karnataka is one of the leading producers of jaggery apart from sugar. Large numbers of jaggery production units are operating in the state which has a great employment potential.
- The sugarcane yield is 90.3 tons/ha which is the second highest in India. Leading to cheaper availability of sugarcane to the jaggery manufacturers.
- There is demand for jaggery in the domestic market, from the retail sector as well as industry segments where jaggery is used as an ingredient.
- The cluster members are having good coordination among themselves and are serious about resolving cluster problems.

II. Weakness

- There are hardly any systematic efforts made to improve jaggery industry which is so vital from the point of view of its importance in the economy and greater



employment potential.

- Jaggery has been relegated to the status of poor person's sugar' or 'rural peoples' sugar.'
- Price uncertainty-jaggery prices in the mandi fluctuate widely.

III. Opportunities

- It has been realized that by organizing jaggery unit on a systematic and scientific basis a good deal of national wealth could be saved from being lost and ameliorate the conditions of Indian micro units.
- Being a health friendly sweetener, quality jaggery and its value-added products such as jaggery chocolate and confectionaries made of various combinations of cereals, it is possible to significantly increase export of jaggery in solid, powder and liquid forms. Thus, there is huge scope for cluster product diversification and for value added product development that can be achieved through training the cluster members.
- Modern process machinery that can give better productivity and quality as well as special features for the final products are available globally.

IV. Threats

- Due to poor market access the profitability of the JLG members may fall bit low level. This may discourage initially to JLG members.
- Main attributed to less profitability to this industry is due to lower price at the beginning and JLG members need to work hard.



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: Jaggery Guds



13. FINANCIALS

CASH FLOW STATEMENT

Particulars	Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF JAGGERY					
No. of working days in a Year	300	300	300	300	300
Less : 90 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 litres (500 litres)	4,000	4,000	4,000	4,000	4,000
Production in kgs	20%	20%	20%	20%	20%
Utilisation of the Capacity (%)	50%	60%	65%	70%	75%
No of kgs Produced in a year	60,000	72,000	78,000	84,000	90,000
Rate per Litre	70	77	85	93	102
Gross Revenue earned per annum - A	42,00,000	55,44,000	66,06,600	78,26,280	92,23,830
REVENUE FROM SALE OF WASTE					
No. of Machine Running days in a Year	150	150	150	150	150
Capacity of the machine in litres (500 litres)	4,000	4,000	4,000	4,000	4,000
Utilisation of the Capacity (%)	50%	60%	65%	70%	75%
Sugar Cane Waste in %	5%	5%	5%	5%	5%
Sugar Cane Waste in kgs	15,000	18,000	19,500	21,000	22,500
Rate per kg	5	6	6	7	7
Gross Revenue earned per annum - B	75,000	99,000	1,17,975	1,39,755	1,64,711
COST OF RAW MATERIALS					
Consumption of Raw Materials	3,00,000	3,60,000	3,90,000	4,20,000	4,50,000
Rate per kg	10	11	12	13	15
Total Cost of Raw Material per annum - C	30,00,000	39,60,000	47,19,000	55,90,200	65,88,450
EXPENDITURE					
Salaries and Wages	5,76,000	6,33,600	6,96,960	7,66,656	9,19,987
Electricity Charges	1,02,000	1,12,200	1,23,420	1,35,762	1,49,338
Other Manufacturing Expenses	39,600	43,560	47,916	52,708	57,978
Transportation and Travelling	36,000	39,600	43,560	47,916	52,708
Rent	1,08,000	1,18,800	1,30,680	1,43,748	1,58,123
Miscellaneous Expenses	10,000	11,000	12,100	13,310	14,641
Total Expenditure - D	8,71,600	9,58,760	10,54,636	11,60,100	13,52,775
Net Profit before Interest /Cash Flow (A+B-C-D)	4,03,400	7,24,240	9,50,939	12,15,735	14,47,316

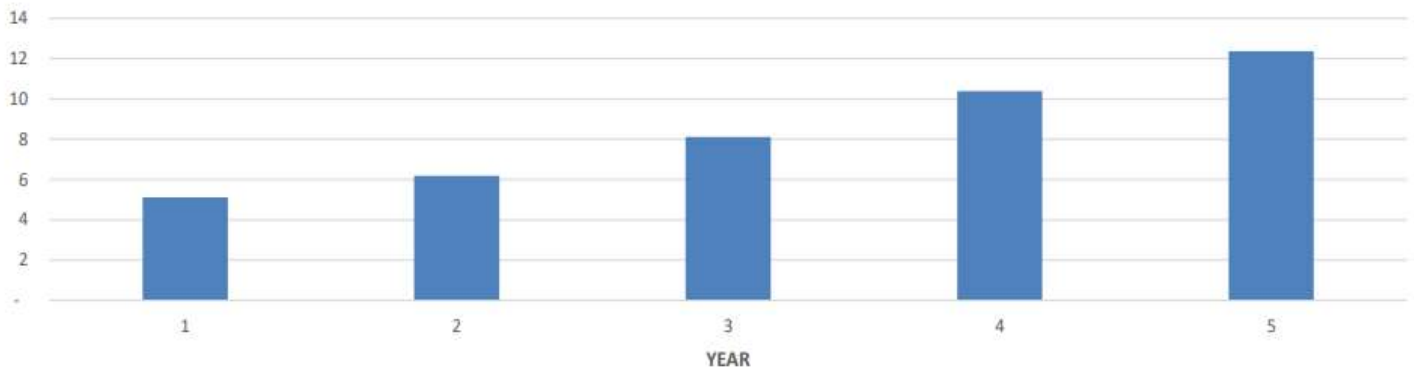


DSCR STATEMENT

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	4,03,400	7,24,240	9,50,939	12,15,735	14,47,316
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	6	8	10	12
AVERAGE DSCR	8				

DEBT SERVICE COVERAGE RATIO



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	4,03,400	7,24,240	9,50,939	12,15,735	14,47,316
Less : Interest on Loan	39,847	33,319	25,002	15,860	5,811
Less : Estimated Drawings/Personal Expenses	2,01,700	3,62,120	4,75,470	6,07,868	7,23,658
Net Cash Flow	1,61,853	3,28,801	4,50,467	5,92,008	7,17,848
Cumulative Cash Flow	1,61,853	4,90,653	9,41,120	15,33,128	22,50,975
Break Even Investment (in years)	1 Year and 11.4 Months				



REPAYMENT SCHEDULE

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	39,847
	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	
2	1	29,280	20,212	3,68,269	9,067	33,319
	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	
3	1	29,280	22,218	2,82,464	7,061	25,002
	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	
4	1	29,280	24,424	1,88,143	4,856	15,860
	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	
5	1	29,280	26,848	84,461	2,432	5,811
	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	
Total		5,47,340	4,27,500		1,19,840	1,19,840



Designated Contact Details for this project

Email ID : contact@vkfoundations.org
Mobile : 9845938269 / 9986024478 / 9902256304
Website: vkfoundations.org

