Detailed Project Report

TAMARIND PULP MAKING MACHINE

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:

Tamarind pulp is a sticky, sour paste that is made from the fruit of the tamarind tree. Tamarind pulp is a versatile ingredient that is used in a variety of dishes, both savory and sweet. In many cuisines, it is used as a souring agent in soups, stews, and curries. It is also used as a marinade for meats, and as a dipping sauce for fried foods. In sweet dishes, tamarind pulp is used to add a tangy flavor to desserts and candies. In some cultures, it is mixed with sugar and served as a refreshing drink.

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.

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 Development Goal of 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 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

TAMARIND PULP MAKING MACHINE

Karnataka is one of the major tamarind producing states in India, with the districts of Bijapur, Belgaum, Raichur, and Dharwad being the major tamarind producing regions. Tamarind is a tropical crop that grows well in the warm and humid climate of Karnataka. The state accounts for around 20% of India's total tamarind production.

Tamarind pulp making machines can be operated manually or electrically, and some models come with additional features like adjustable pulp thickness, stainless steel construction, and easy cleaning. They can be used in commercial kitchens, food processing industries, and even in households where tamarind pulp is regularly used in cooking.

When choosing a tamarind pulp making machine, it is important to consider factors like the capacity, power source, ease of use, maintenance requirements, and cost. It is also advisable to choose a reputable brand and model that comes with a warranty and good after-sales service.

5. DELIVERABLES AND MARKET OF THE PRODUCT

The main deliverable product of a tamarind pulp making machine is the tamarind pulp itself, which is extracted from the tamarind fruit using the machine. The machine is designed to separate the edible pulp from the seeds and fiber of the tamarind fruit, resulting in a smooth, thick, and tangy pulp that can be used in various food preparations.

Tamarind pulp has a wide range of culinary applications, and it is a key ingredient in many dishes, including chutneys, curries, sauces, and beverages. The tamarind pulp produced by the machine can be used immediately for cooking, or it can be stored for later use. It can be stored in airtight containers in the refrigerator for up to several weeks, or it can be frozen for longer-term storage.

Project Assumptions: This model DPR for Tamarind Pulp Making Machine 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 Tamarind Pulp Making Machine:	150kg/day	
Utilization of capacity:	Year 1	60%
	Year 2	65%
	Year 3	70%
	Year 4	75%
	Year 5	80%
Working days per year:	250 days	
Working hours per day:	8-10 hours	
Average price of raw material:	Rs. 75/ kg	
Average sale price of product	Rs. 150/ kg	

Machineries

Single Stage Semi-Automatic Pulping Machine
Capacity: 150 Kgs
Motor: 1.5 HP
Unisoft Pheripherials
Rajkot, Gujarat

Machinery is also available in Bengaluru and Coimbatore.

Market Output:

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

Market Linkage	
❖ Supermarkets	❖ E-commerce
❖ Grocery stores	❖ Quick commerce
❖ Departmental stores	❖ Restaurants

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 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 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	2,25,000	90%
2	JLG contribution	22,500	10%
3	**Total**	**2,47,500**	**100%**

Sl. No.	Details	Cost in Rs.
1	Machine Cost	1,67,500
2	Furniture	20,000
3	Working capital (Shed deposit, electric connection deposit, Miscellaneous and preoperative expenses)	60,000
	TOTAL	**2,47,500**

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

- The tamarind pulp making machine is an efficient way to extract tamarind pulp from the fruit. It can extract pulp from a large number of fruits in a short period of time.
- The machine produces consistent quality of pulp, free from any seeds and fiber.

- Using a tamarind pulp making machine saves time and labor required to extract pulp manually.
- The machine is easy to operate, and it does not require any special skills or knowledge.
- The machine is designed to maintain high levels of hygiene, preventing contamination and ensuring food safety.
- The cluster members are having good coordination among themselves and are serious about resolving cluster problems.

II. Weakness

- The machine can be expensive, making it difficult for small scale farmers or processors to afford.
- The machine requires electricity to operate, which may be a challenge in areas with unreliable power supply or lack of access to electricity.
- The machine requires regular maintenance to keep it in good working condition.

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III. Opportunities

- With the growing popularity of tamarind pulp in various cuisines, there is an increasing demand for tamarind pulp making machines in the market.
- Tamarind pulp making machines can be exported to other countries, especially those with a high demand for tamarind pulp.

- Manufacturers can diversify their product line by offering tamarind pulp making machines with additional features or improved designs

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.
- There are already established tamarind pulp making machine manufacturers in the market, making it difficult for new entrants to gain market share.
- There are substitute products for tamarind pulp that may limit the demand for tamarind pulp making machines.

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 food waste:** When tamarind pulp is extracted manually, it can result in a significant amount of food waste due to the difficulty of separating the pulp from the seeds and fibers. However, tamarind pulp making machines are designed to efficiently separate the pulp from the waste material, which can significantly reduce food waste and help conserve resources.
- **Reduced water consumption**: Traditional methods of tamarind pulp extraction involve soaking the fruit in water, which can result in a significant amount of water consumption. Tamarind pulp making machines are designed to use less water during the extraction process, which can help conserve water resources and reduce water usage.
- **Energy efficiency:** By using energy-efficient equipment and appliances in its operations, a tamarind pulp making business can reduce its energy consumption and carbon footprint. It can also consider using renewable energy sources, such as solar panels, to power its operations.
- **Supporting local communities**: By operating locally and sourcing ingredients locally, a tamarind pulp making business can contribute to the growth and development of the local economy. This can help to reduce the carbon footprint associated with transportation and create a more sustainable and resilient local economy.

12. THE END PRODUCTS PRODUCED FROM THE MACHINE

13. FINANCIALS

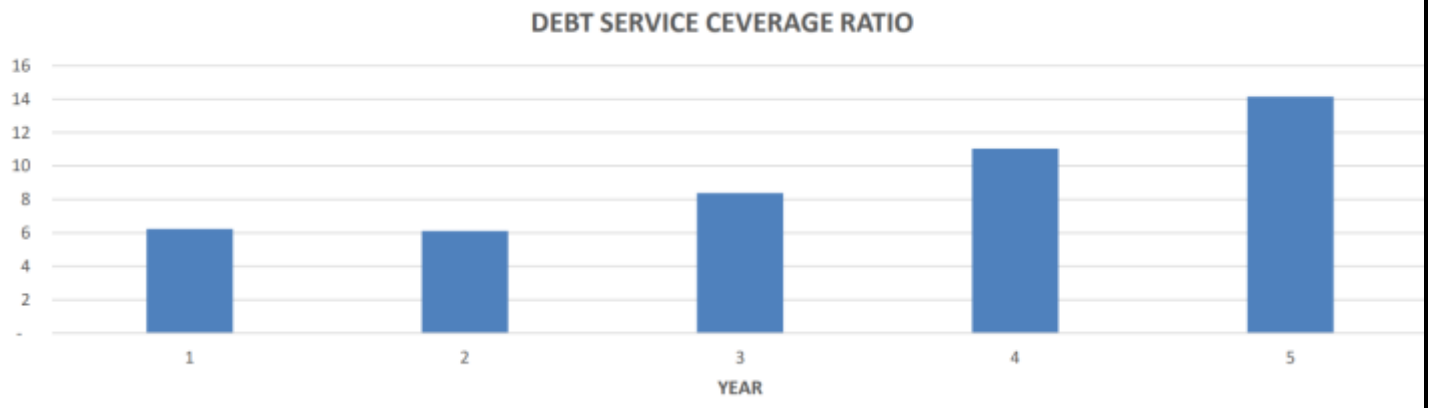
CASH FLOW STATEMENT

Particulars / Year	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF TAMARIND PULP					
No. of working days in a Year	300	300	300	300	300
Less : Days for off Season	50	50	50	50	50
No. of Machine Running days in a Year	250	250	250	250	250
Capacity of the machine in kgs per day	150	150	150	150	150
Production in kgs	80%	80%	80%	80%	80%
Utilisation of the Capacity (%)	60%	65%	70%	75%	80%
No of litres Produced in a year	18,000	19,500	21,000	22,500	24,000
Rate per Kg	150	165	182	200	220
Gross Revenue earned per annum - A	**27,00,000**	**32,17,500**	**38,11,500**	**44,92,125**	**52,70,760**
COST OF RAW MATERIALS					
Consumption of Raw Materials	22,500	24,375	26,250	28,125	30,000
Rate per Kgs	75	83	91	100	110
Total Cost of Raw Material per annum - B	**16,87,500**	**20,10,938**	**23,82,188**	**28,07,578**	**32,94,225**
EXPENDITURE					
Salaries and Wages	5,28,000	5,80,800	6,38,880	7,02,768	7,73,045
Electricity Charges	66,000	72,600	79,860	87,846	96,631
Other Manufacturing Expenses	36,000	39,600	43,560	47,916	52,708
Transportation and Travelling	36,000	39,600	43,560	47,916	52,708
Rent	54,000	59,400	65,340	71,874	79,061
Packaging and Promotion Expenses	24,000	26,400	29,040	31,944	35,138
Miscellaneous Expenses	10,000	11,000	12,100	13,310	14,641
Total Expenditure - C	**7,54,000**	**8,29,400**	**9,12,340**	**10,03,574**	**11,03,931**
Net Profit before Interest /Cash Flow (A-B-C)	**2,58,500**	**3,77,163**	**5,16,973**	**6,80,973**	**8,72,604**

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	**2,58,500**	**3,77,163**	**5,16,973**	**6,80,973**	**8,72,604**
Loan Repayment	20,536	44,105	48,482	53,294	58,583
Interest on Term Loan	20,972	17,536	13,159	8,347	3,058
Debt to be Served	**41,508**	**61,641**	**61,641**	**61,641**	**61,641**
Debt Service Coverage Ratio	6	6	8	11	14
AVERAGE DSCR	**9**				



BREAKEVEN ANALYSIS

Investment Value Including Margin Rs. 250000

Year ended	Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected	Year 5 Projected
Cash Flow as per Statement of Income	2,58,500	3,77,163	5,16,973	6,80,973	8,72,604
Less: Interest on Loan	20,972	17,536	13,159	8,347	3,058
Less: Estimated Drawings/Personal Expenses	1,29,250	1,88,581	2,58,486	3,40,486	4,36,302
Net Cash Flow	**1,08,278**	**1,71,045**	**2,45,327**	**3,32,139**	**4,33,244**
Cumulative Cash Flow	**1,08,278**	**2,79,322**	**5,24,650**	**8,56,788**	**12,90,032**
Break Even Investment (in years)			**1 Year and 9.9 Months**		

REPAYMENT SCHEDULE

DETAIL REPAYMENT SCHEDULE

Year	Quarter	Loan Installment	Principal Payment	Loan Outstanding	Interest at 9.5%	Cumulative Interest
1	1	5,344	-	2,25,000	5,344	
	2	5,344	-	2,25,000	5,344	
	3	15,410	10,146	2,14,854	5,264	
	4	15,410	10,389	2,04,464	5,021	20,972
2	1	15,410	10,638	1,93,826	4,772	
	2	15,410	10,893	1,82,933	4,518	
	3	15,410	11,154	1,71,780	4,257	
	4	15,410	11,421	1,60,359	3,990	17,536
3	1	15,410	11,694	1,48,665	3,716	
	2	15,410	11,974	1,36,692	3,437	
	3	15,410	12,260	1,24,431	3,150	
	4	15,410	12,554	1,11,877	2,856	13,159
4	1	15,410	12,854	99,023	2,556	
	2	15,410	13,162	85,860	2,248	
	3	15,410	13,477	72,383	1,933	
	4	15,410	13,800	58,583	1,610	8,347
5	1	15,410	14,130	44,453	1,280	
	2	15,410	14,469	29,984	942	
	3	15,410	14,815	15,170	595	
	4	15,410	15,170	0	241	3,058
Total		**2,88,074**	**2,25,000**		**63,074**	**63,074**

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