DETAILED PROJECT REPORT

Briquette Making 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:

Coconut shell charcoal briquettes are a type of charcoal made from coconut shells that have been processed and compressed into small blocks. They are a popular alternative to traditional charcoal due to their sustainable sourcing, high heat output, and long burn time. Coconut shell charcoal briquettes are commonly used for grilling, barbecuing, and smoking food, as well as for heating and cooking in various industries.

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

Briquette Making Unit

Coconut shell charcoal briquettes are typically produced using a combination of modern and traditional technologies. The process typically involves crushing the coconut shells into small pieces, then carbonizing them at high temperatures in a furnace or kiln, which removes the volatile components and produces charcoal. The charcoal is then mixed with a binder, such as cassava starch or corn starch, and compressed into briquettes using a mechanical press. The briquettes are dried in the sun or in a drying oven and can be used as a sustainable and renewable fuel source for cooking, heating, and other applications. Overall, the production of coconut shell

charcoal briquettes requires a combination of machinery, equipment, and manual labour, along with knowledge of the charcoal-making process and the use of renewable and environmentally-friendly materials.

5. DELIVERABLES AND MARKET OF THE PRODUCT

Coconut shell charcoal briquettes are becoming increasingly popular in India due to their eco-friendliness, affordability, and availability. They are used as a clean-burning and long-lasting fuel for various applications such as cooking, heating, and industrial processes.

The market for coconut shell charcoal briquettes in India is growing rapidly due to the increasing demand for sustainable and renewable energy sources. The key players in the Indian market for coconut shell charcoal briquettes are manufacturers and suppliers who source raw materials from coconut-producing regions in India, such as Kerala, Tamil Nadu, Andhra Pradesh, and Karnataka.

Some of the popular brands of coconut shell charcoal briquettes in India include Vesp Energy, Briquette Master, Mesjaya Abadi Sdn Bhd, PT. Cahaya Energi Mandiri, and CV. Indo Energy. The market for coconut shell charcoal briquettes in India is also driven by the government's push towards renewable energy sources and the increasing awareness among consumers about the benefits of using eco-friendly products. As a result, there is a lot of potential for growth in the Indian market for coconut shell charcoal briquettes.

Project Assumptions: This model DPR for Briquette Making 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 Briquette Making Unit:	200 pieces per day	
Utilization of capacity:	Year 1	65%
	Year 2	70%
	Year 3	75%
	Year 4	80%
	Year 5	85%
Working days per year:	300 days	
Working hours per day:	8-10 hours	
Average price of raw material:	Rs. 25/ piece	
Average sale price of product	Rs. 75/ piece	

Machineries

Automatic Mild Steel Charcoal Briquette Machine
Capacity per day: 200 pieces per day
Automatic grade: Fully automatic
Voltage: 220-240 V
IV Tech Equipments
Coimbatore, Tamil Nadu

Market Output:

The end users will be as follows:

Market Linkage	
❖ Supermarkets	❖ Hotels
❖ Kirana stores	❖ Food processers
❖ Hypermarkets	❖ Restaurants & Food Service

6. ROLE OF EACH OF THE JLG MEMBERS

How JLG will participate:

- 2 persons will be used on operating of machines
- 2 persons for sales and logistics
- 2 persons for maintenance of machines
- 1 person on accounting of finances/business development
- 2 persons on trained to do on all other activities

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	4,05,000	90%
2	JLG contribution	40,500	10%
3	**Total**	**4,45,500**	**100%**

Sl. No.	Details	Cost in Rs.
1	Machine Cost	3,00,000
2	Furniture	45,500

3	Working capital (Shed deposit, electric connection deposit, Miscellaneous and preoperative expenses)	1,00,000
	TOTAL	**Rs. 4,45,500/-**

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. Strengths

- Coconut shells are a renewable resource, making coconut shell charcoal briquettes a sustainable product.
- Coconut shell charcoal briquettes burn hotter and longer than traditional charcoal, making them ideal for cooking and grilling.
- These briquettes produce less smoke compared to traditional charcoal, making them an environmentally friendly option.
- Coconut shell charcoal briquettes are easy to light, requiring less time and effort to start a fire.
- Coconut shell charcoal briquettes are often cheaper than traditional charcoal, making them a more affordable option for consumers.

II. Weaknesses

- Coconut shell charcoal briquettes may not be as widely available as traditional charcoal, limiting their accessibility to some consumers.
- The transportation costs associated with shipping coconut shell charcoal briquettes can be relatively high, increasing the overall cost of the product.
- There may be other alternative fuel sources, such as gas or electric grills, which could compete with coconut shell charcoal briquettes.

III. Opportunities

- As consumers become more aware of the importance of sustainability, there is an opportunity for coconut shell charcoal briquettes to gain popularity as a sustainable fuel source.
- Coconut shell charcoal briquettes may have the potential to expand into new markets, such as outdoor camping and cooking.
- There may be opportunities to diversify the product line by adding new flavors or scents to the briquettes.

IV. Threats

- The prices of coconut shells may be subject to fluctuations, which could impact the profitability of producing coconut shell charcoal briquettes.
- Coconut shell charcoal briquettes may face competition from other sustainable fuel sources, such as biomass briquettes or wood pellets.
- Changes in government regulations or policies related to renewable energy or environmental issues could impact the production and sales of coconut shell charcoal briquettes.

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

- **Socio-Economic Impact:** One of the key social benefits of coconut briquette enterprises is their mutually beneficial partnership with community groups who add value by either sourcing the raw material or at the production and distribution stage.
- **Environmental Impact**: Briquette making (such as bagasse and saw dust), the environmental benefits of coconut briquettes are manifold. there is some evidence to suggest that clean burning briquettes when combined with efficient cookstoves could reduce carbon emissions compared to other fossil fuels.

12. THE END PRODUCTS PRODUCED FROM THE MACHINE

13. FINANCIALS

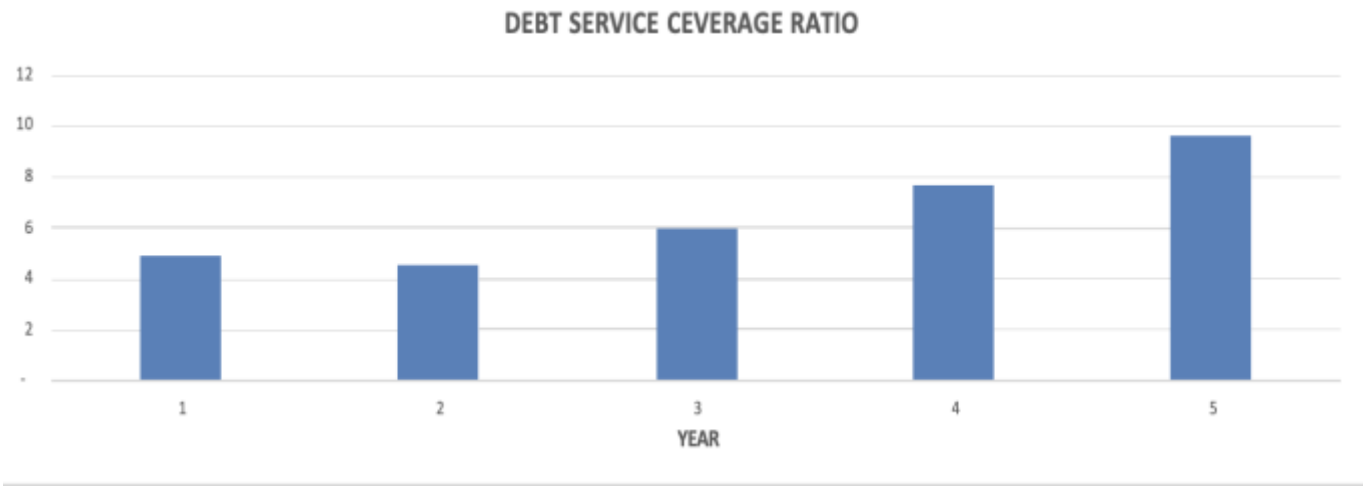
CASH FLOW STATEMENT

Particulars / Year	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF BRIQUETTES					
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 Piece per day	200	200	200	200	200
Production in Piece	90%	90%	90%	90%	90%
Utilisation of the Capacity (%)	65%	70%	75%	80%	85%
Production during the year (in Pieces)	35,100	37,800	40,500	43,200	45,900
Rate per Piece	75	83	91	100	110
Gross Revenue earned per annum - A	**26,32,500**	**31,18,500**	**36,75,375**	**43,12,440**	**50,40,164**
COST OF RAW MATERIALS					
Consumption of Raw Materials	39,000	42,000	45,000	48,000	51,000
Rate per Piece	25	28	30	33	37
Total Cost of Raw Material per annum - B	**9,75,000**	**11,55,000**	**13,61,250**	**15,97,200**	**18,66,728**

EXPENDITURE					
Salaries and Wages	7,80,000	8,97,000	10,31,550	11,86,283	13,64,225
Electricity Charges	1,44,000	1,58,400	1,74,240	1,91,664	2,10,830
Rent	1,80,000	1,98,000	2,17,800	2,39,580	2,63,538
Transportation and Travelling	84,000	92,400	1,01,640	1,11,804	1,22,984
Packaging and Promotion Expenses	72,000	79,200	87,120	95,832	1,05,415
Miscellaneous Expense	30,000	33,000	36,300	39,930	43,923
Total Expenditure - C	**12,90,000**	**14,58,000**	**16,48,650**	**18,65,093**	**21,10,916**
Net Profit before Interest /Cash Flow (A-B-C)	**3,67,500**	**5,05,500**	**6,65,475**	**8,50,148**	**10,62,521**

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	**3,67,500**	**5,05,500**	**6,65,475**	**8,50,148**	**10,62,521**
Loan Repayment	36,965	79,389	87,268	95,929	1,05,450
Interest on Term Loan	37,750	31,566	23,687	15,025	5,505
Debt to be Served	**74,715**	**1,10,954**	**1,10,954**	**1,10,954**	**1,10,954**
Debt Service Coverage Ratio	5	5	6	8	10
AVERAGE DSCR	**7**				



BREAKEVEN ANALYSIS

Investment Value Including Margin Rs. 450000

Year ended	Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected	Year 5 Projected
Cash Flow as per Statement of Income	3,67,500	5,05,500	6,65,475	8,50,148	10,62,521
Less : Interest on Loan	37,750	31,566	23,687	15,025	5,505
Less : Estimated Drawings/Personal Expenses	1,83,750	2,52,750	3,32,738	4,25,074	5,31,260
Net Cash Flow	**1,46,000**	**2,21,184**	**3,09,051**	**4,10,048**	**5,25,756**
Cumulative Cash Flow	**1,46,000**	**3,67,184**	**6,76,235**	**10,86,283**	**16,12,039**
Break Even Investment (in years)		**2 Year and 3.2 Months**			

DETAIL REPAYMENT SCHEDULE

Year	Quarter	Loan Installment	Principal Payment	Loan Outstanding	Interest at 9.5%	Cumulative Interest
1	1	9,619	-	4,05,000	9,619	
	2	9,619	-	4,05,000	9,619	
	3	27,739	18,264	3,86,736	9,475	
	4	27,739	18,701	3,68,035	9,038	37,750
2	1	27,739	19,149	3,48,887	8,590	
	2	27,739	19,607	3,29,280	8,132	
	3	27,739	20,076	3,09,204	7,662	
	4	27,739	20,557	2,88,647	7,182	31,566
3	1	27,739	21,049	2,67,598	6,690	
	2	27,739	21,553	2,46,045	6,186	
	3	27,739	22,069	2,23,976	5,670	
	4	27,739	22,597	2,01,379	5,141	23,687
4	1	27,739	23,138	1,78,241	4,601	
	2	27,739	23,692	1,54,549	4,047	
	3	27,739	24,259	1,30,290	3,479	
	4	27,739	24,840	1,05,450	2,899	15,025
5	1	27,739	25,434	80,015	2,304	
	2	27,739	26,043	53,972	1,695	
	3	27,739	26,667	27,305	1,072	
	4	27,739	27,305	(0)	433	5,505
Total		**5,18,533**	**4,05,000**		**1,13,533**	**1,13,533**

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