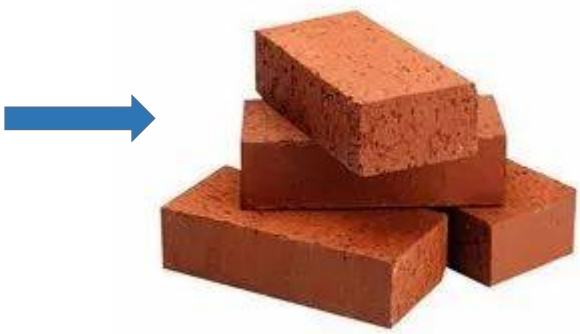
DETAILED PROJECT REPORT

Brick 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:

Bricks are rectangular building blocks made from clay, sand, lime, concrete, or other materials that are baked or fired at high temperatures to create a hard, durable, and versatile construction material. Bricks have been used in construction for thousands of years and continue to be a popular choice for a variety of building projects.

Bricks come in a range of sizes, colors, and textures, and can be used for various applications such as walls, floors, and pavements.

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

Brick Making Unit

Bricks are building blocks that have a rectangular shape and are manufactured using materials like clay, sand, lime, concrete, and other substances. They are baked or fired at high temperatures to create a durable, strong, and versatile construction material. Bricks have a rich history and have been used for thousands of years, and are still widely used today for various building projects. They are available in different sizes, colors, and textures, and can be applied in different ways, including walls, floors, and pavements.

Some common types of bricks include:

- Clay bricks: Made from clay and fired in a kiln, clay bricks are the most common type of brick used in construction.
- Concrete bricks: Made from cement, sand, and water, concrete bricks are popular for their strength and durability.
- Sand-lime bricks: Made from sand, lime, and water, these bricks are lighter and less porous than traditional clay bricks.
- Fly ash bricks: Made from fly ash, a byproduct of coal combustion, these bricks are lightweight and environmentally friendly.
- Fire bricks: Made from refractory ceramic materials, these bricks can withstand high temperatures and are commonly used in fireplaces, ovens, and kilns.

  Brick making units are businesses that specialize in producing bricks for construction purposes. These units typically operate on a small scale and are situated near the source of raw materials like clay and sand. They produce different types of bricks, including solid, hollow, perforated, and interlocking bricks, which can be used in various construction applications, such as building walls, paving, and landscaping.

  The process of brick making involves mixing raw materials, molding the mixture into the desired shape, drying the bricks, and firing them in a kiln. This process requires skilled labor, specialized machinery, and reliable access to raw materials.

While brick making units can be profitable businesses, they require significant upfront investment in terms of land, machinery, and labor. Additionally, brick making units must comply with local regulations and environmental standards to operate legally.

Factors to consider when starting a brick making unit include the availability of raw materials, the market demand for bricks, the cost of production, and competition from other brick manufacturers in the area. Conducting thorough market research and developing a detailed business plan can help ensure the success of a brick making unit.

5. DELIVERABLES AND MARKET OF THE PRODUCT

The primary deliverable of a brick making unit is high-quality bricks that meet the required standards for construction purposes. These bricks should be durable, strong, and able to withstand various environmental conditions.

- **Raw materials:** Brick making units need a reliable source of raw materials like clay, sand, and lime to produce high-quality bricks.
- **Machinery:** Specialized machinery is necessary for mixing and molding the raw materials into the desired brick shape.
- **Skilled labor:** Skilled labor is needed to operate the machinery and produce bricks that meet the required standards.
- **Quality control:** Brick making units need to implement quality control measures to ensure that the bricks meet the required standards.
- **Packaging and transportation:** Once the bricks are produced, they need to be packaged and transported to the customers' locations.

In addition to the production of high-quality bricks, brick making units may also offer other services such as customization of bricks, transportation, and installation of the bricks. These services may help the brick making unit stand out in the market and attract more customers.

Project Assumptions:

This model DPR for BRICK 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 machine in Article per day:	4000Bricks(500/ hour)	
Utilization of capacity:	Year 1	60%
	Year 2	60%
	Year 3	65%
	Year 4	65%
	Year 5 ONWARDS	70%
Working days per year:	300 days	
Working hours per day:	8-10 hours	

Machineries

Automatic Solid High Pressure Brick Making Machine
Capacity- 1000 bricks/Hours
Solid Brick
Automatic machinery
Ahemdabad,Gujarat

Machinery is also available in Bengaluru and Coimbatore.

Market Output:

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

The end users will be as follows:

Market Linkage	
❖ **Construction sites**	❖ **Furnace making**
❖ **Suppliers**	❖ **Cooking**
❖ **Builders**	
❖ **Architech**	

6. ROLE OF EACH OF THE JLG MEMBERS

How JLG will participate:

- 2 persons for procurement
- 3 persons for production
- 2 person for logistics & sales
- 2 persons for value addition
- 1 person for waste management

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**	**4,45,000**	**100%**

Sl. No.	Details	Cost in Rs.
1	Machine Cost	2,60,000
2	Furniture	55,000
3	Working capital (Shed deposit, electric connection deposit,	1,30,000

	Miscellaneous and preoperative expenses)	
	TOTAL	**4,45,000**

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. Strengths

- There is abundant raw material available in the district.
- The source of raw material procurement is very convenient due to local availability.
- The JLG members are having good coordination and co-operation among themselves.
- Government is very favorable for supporting the youths.
- High demand: There is a high demand for bricks in the construction industry, making it a lucrative business.
- Low capital requirement: The initial investment required to start a brick-making unit is relatively low.
- Availability of raw materials: The raw materials required for brick-making, such as clay, sand, and water, are usually abundant and easily accessible.
- Customizable products: Brick-making units can produce a wide range of bricks with different shapes, sizes, colors, and textures, catering to the diverse needs of customers.
- Durable product: Bricks are a durable building material that can withstand harsh weather conditions and last for a long time.

II. Weaknesses

- abor-intensive: Brick-making is a labor-intensive process, requiring a significant amount of manual labor, which can increase the cost of production.

- Seasonal demand: The demand for bricks is usually seasonal, with higher demand during the construction season, making it challenging to maintain a stable cash flow throughout the year.
- Dependence on weather: The quality of the bricks can be affected by weather conditions, such as rainfall or extreme temperatures, making it necessary to adjust production accordingly.
- Environmental impact: Brick-making can have negative environmental impacts, such as soil degradation and deforestation, requiring appropriate measures to mitigate these effects.
- The machines require regular maintenance, which can add to the overall cost of ownership.
- The JLG members lack insufficient place for working/processing in their units. All the process was being carried at one small area.
- The JLG members are unable to purchase modern machineries due to financial limitations.
- The JLG members have poor access to national and international markets. This will affect initially the profitability of the JLG members.

III. Opportunities

- JLG members are still very young if they start performing well in business and in future modern process machinery with better productivity and quality as well as special features for the final products and value addition products also can be done within JLG members.

- Partnerships with interior design and architecture firms can provide opportunities to create larger, more complex pieces.
- Young JLG members have long way to go with new Innovation in the recycle production it will help to create global impact on recycling.
- Expansion: The brick-making unit can expand its operations by increasing production capacity or adding new products to its portfolio, such as pavers, tiles, or blocks.
- Export: The demand for bricks is not limited to local markets, and the unit can explore exporting bricks to other countries, expanding its customer base.
- Innovation: The unit can invest in research and development to improve the quality of its products, reduce production costs, or introduce eco-friendly technologies.
- Diversification: The unit can diversify its business by offering related services, such as bricklaying, construction, or landscaping.

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 of plastic processing industry is due to lower price at the beginning and JLG members need to work hard.
- Competition: The brick-making industry is highly competitive, and the unit may face competition from established players or new entrants.
- Economic downturns: Economic downturns can significantly affect the

construction industry and the demand for bricks, leading to lower sales and revenue.

- Government regulations: The unit may be subject to various government regulations related to labor, environment, taxes, or trade, which can affect its operations and profitability.
- Substitute products: The unit may face competition from substitute products, such as concrete blocks or steel frames, which can offer similar or better performance at a lower cost.

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

- **Longevity and durability:** Brick making units are often made to last for generations and can be repaired and maintained over time, reducing the need for frequent replacement and reducing waste**.**
- **Reduced deforestation:** Traditional brick making methods involve cutting down trees for fuel. However, modern brick making units use more sustainable

methods such as using waste materials like sawdust and rice husk as fuel. This reduces the demand for wood, which helps to preserve forests.

- **Waste reduction:** Brick making units can also help to reduce waste. For example, fly ash produced from thermal power plants can be used as a raw material in brick making. This reduces the amount of waste that would otherwise be generated.
- **Employment:** Brick making units provide employment opportunities for local communities. This can help to reduce poverty and improve the economic conditions of the area.
- **Building materials:** Bricks are a durable and long-lasting building material. They can be used to construct houses and other structures that can withstand natural disasters like earthquakes and floods.
- **Soil conservation:** Brick making units can also help to conserve soil by using clay that is extracted from mines or quarries. This helps to prevent soil erosion and protects the soil's fertility.

12. THE END PRODUCTS PRODUCED FROM BRICK MAKING UNIT

13. FINANCIALS

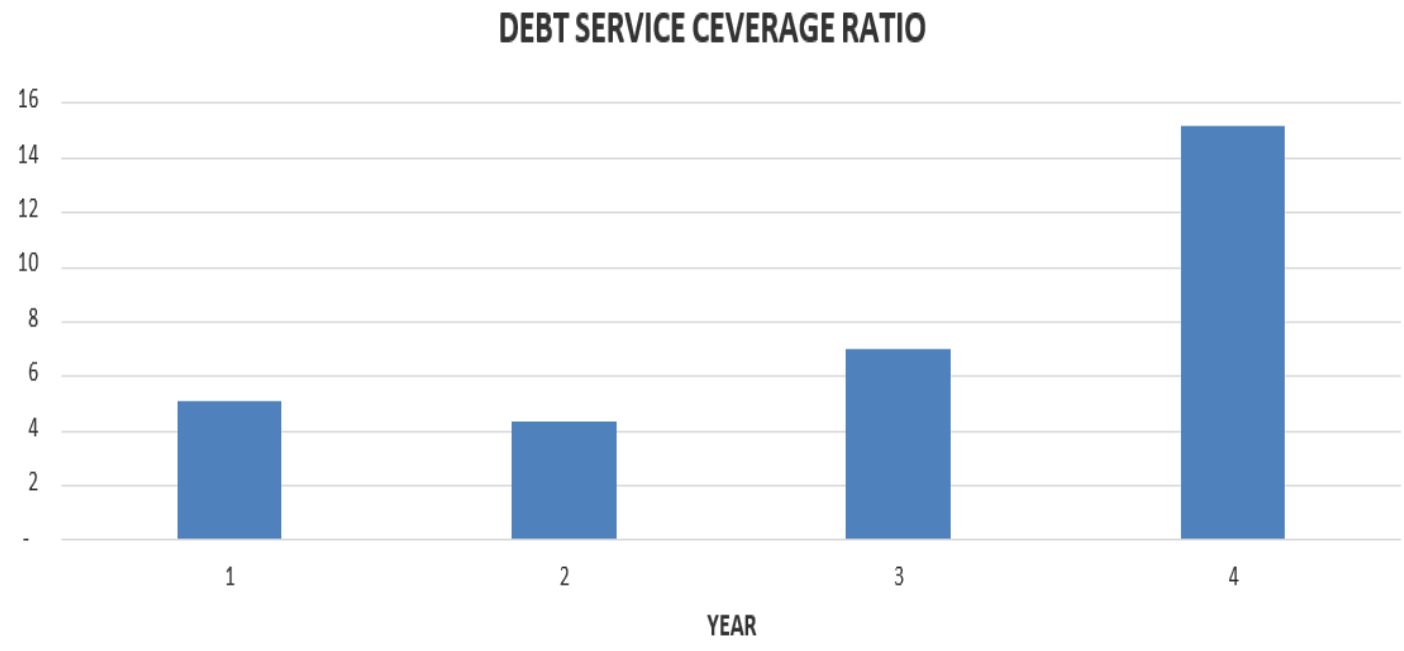
CASH FLOW STATEMENT

Particulars \ Year	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF RED BRICKS					
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 Bricks per day (500 bricks per hour)	4,000	4,000	4,000	4,000	4,000
Production in Bricks	95%	95%	95%	95%	95%
Utilisation of the Capacity (%)	60%	60%	65%	65%	70%
Production during the year	6,84,000	6,84,000	7,41,000	7,41,000	7,98,000
Rate per Brick	7	8	9	10	11
Gross Revenue earned per annum - A	**47,88,000**	**54,72,000**	**66,69,000**	**74,10,000**	**87,78,000**
COST OF RAW MATERIALS					
Consumption of Raw Materials	7,20,000	7,20,000	7,80,000	7,80,000	8,40,000
Rate per Bricks	3.00	3.30	3.63	3.99	4.39
Total Cost of Raw Material per annum - B	**21,60,000**	**23,76,000**	**28,31,400**	**31,14,540**	**36,89,532**
EXPENDITURE					
Salaries and Wages	14,40,000	16,56,000	19,04,400	21,90,060	25,18,569
Electricity Charges	1,44,000	1,58,400	1,74,240	1,91,664	2,10,830
Rent	3,00,000	3,30,000	3,63,000	3,99,300	4,39,230
Transportation and Travelling	1,92,000	2,11,200	2,32,320	2,55,552	2,81,107
Miscellaneous Expense	60,000	66,000	72,600	79,860	87,846
Total Expenditure - C	**21,36,000**	**24,21,600**	**27,46,560**	**31,16,436**	**35,37,583**
Net Profit before Interest /Cash Flow (A-B-C)	**4,92,000**	**6,74,400**	**10,91,040**	**11,79,024**	**15,50,885**

DSCR STATEMENT

PROJECTED TERM LOAN DSCR STATEMENT

	Year 1	Year 2	Year 3	Year 4
	Projected	Projected	Projected	Projected
Profit available to service the debt	**4,92,000**	**6,74,400**	**10,91,040**	**11,79,024**
Loan Repayment	59,775	1,28,378 27,302	1,41,119 14,561	75,728
Interest on Term Loan	37,303			2,112
Debt to be Served	**97,078**	**1,55,680**	**1,55,680**	**77,840**
Debt Service Coverage Ratio	5	4	7	15
AVERAGE DSCR	**8**			



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	4,92,000	6,74,400	10,91,040	11,79,024	15,50,885
Less : Interest on Loan	37,303	27,302	14,561	2,112	-
Less : Estimated Drawings/Personal Expenses	2,46,000	3,37,200	5,45,520	5,89,512	7,75,443
Net Cash Flow	**2,08,697**	**3,09,898**	**5,30,959**	**5,87,400**	**7,75,443**
Cumulative Cash Flow	**2,08,697**	**5,18,595**	**10,49,554**	**16,36,954**	**24,12,397**
Break Even Investment (in years)	**1 Year and 9.3 Months**				

REPAYMENT

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	38,920	29,534	3,75,466	9,386	
	4	38,920	30,241	3,45,225	8,679	37,303
2	1	38,920	30,965	3,14,260	7,955	
	2	38,920	31,706	2,82,554	7,214	
	3	38,920	32,465	2,50,089	6,455	
	4	38,920	33,242	2,16,847	5,678	27,302
3	1	38,920	34,038	1,82,809	4,882	
	2	38,920	34,853	1,47,956	4,067	
	3	38,920	35,687	1,12,269	3,233	
	4	38,920	36,541	75,728	2,379	14,561
4	1	38,920	37,416	38,312	1,504	
	2	38,920	38,312	-	608	2,112
Total		**4,86,278**	**4,05,000**		**81,278**	**81,278**

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