



Detailed Project Report

Natural Pesticides & Fertilizer 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:



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

Natural Pesticide and Fertilizer Making Unit

Natural pesticides are derived from natural sources such as plants, minerals, or animals, and are used to control pests and diseases in crops and gardens. They offer an alternative to synthetic pesticides, which are chemically manufactured and can have harmful effects on the environment and human health. Natural fertilizer is a type of organic fertilizer that is made from natural sources. Unlike synthetic fertilizers, which are chemically manufactured, natural fertilizers are made from natural ingredients such as plant and animal waste, minerals, and other organic materials. Natural fertilizers can provide many benefits over synthetic fertilizers, including improving soil health, reducing environmental pollution, and providing plants with a balanced mix of nutrients. However, it's important to note that natural fertilizers can be more variable in their nutrient content and may not be as immediately available to plants as synthetic fertilizers. It's also important to use natural fertilizers in appropriate quantities to avoid over-fertilizing plants and potentially causing harm to the environment. Natural



pesticides can be effective alternatives to synthetic pesticides, but it's important to remember that they can still have an impact on non-target species and the environment if used improperly. It's important to follow the instructions on the label and use natural pesticides in appropriate quantities to avoid harming beneficial insects, such as bees, butterflies, and ladybugs.

5. DELIVERABLES AND MARKET OF THE PRODUCT

The primary deliverable of natural pesticides is to control pests and diseases in crops and gardens. Natural pesticides can effectively control a wide range of pests and diseases, including insects, mites, fungi, and bacteria. Natural pesticides are a safer and healthier alternative to synthetic pesticides as they are less harmful to the environment and human health. Natural pesticides leave little to no toxic residue on fruits and vegetables, which means they can be safely consumed by people and animals. Natural pesticides are an important tool in sustainable agriculture as they help reduce the use of synthetic pesticides, which can have negative environmental impacts. By using natural pesticides, farmers can improve soil health, reduce pollution, and protect natural habitats. Natural pesticides can be cost-effective when used correctly. While some natural pesticides may be more expensive than synthetic pesticides, they can often be made from readily available materials and can be applied at lower rates, which can help reduce costs. Natural pesticides can help improve crop quality and yield by protecting plants from pests and diseases. Healthy plants are



better able to grow and produce high-quality fruits and vegetables, which can lead to increased profits for farmers.

The deliverables of natural pesticides include safe and healthy produce, sustainability, cost-effectiveness, improved crop quality and yield, and effective pest and disease control.



Market Output:

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

Market Linkage

- ❖ **Online Marketplace**
- ❖ **Farmer groups**
- ❖ **Nursery**
- ❖ **E-Commerce**



Project Assumptions: This model DPR for Natural Pesticides & Fertilizer Manufacturing 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 Fertilizer Making Unit: | 100 kgs/day | |
| Utilization of capacity: | Year 1 | 60 % |
| | Year 2 | 65 % |
| | Year 3 | 70 % |
| | Year 4 | 75 % |
| | Year 5 | 80 % |
| Working days per year: | 300 days | |
| Working hours per day: | 8-10 hours | |
| Average price of raw material: | Rs. 150/kg | |
| Average sale price of product | Rs. 250/kg | |

Machineries:





| |
|--|
| Fertilizer Manufacturing Machine |
| Capacity: 6000mtrs per hour |
| Automatic grade: Semi-Automatic |
| Power Source: 200 V |
| 16, GIDC ROAD, Chakan MIDC, Khed, Pune - 410501, Maharashtra. |

6. ROLE OF EACH OF THE JLG MEMBERS

How JLG will participate:

- 1 person will be used to procurement
- 2 persons for production
- 2 persons for the logistics & sales
- 1 person 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 | 4,50,000 | 100% |

| Sl. No. | Details | Cost in Rs. |
|---------|---|-------------|
| 1 | Machine Cost | 2,80,000 |
| 2 | Furniture | 50,000 |
| 3 | Working capital (Shed deposit, electric connection deposit, | 1,50,000 |



| | | |
|--|--|----------|
| | Miscellaneous and preoperative expenses) | |
| | TOTAL | 4,80,000 |

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

- Karnataka is a state with abundant forest resources, which provides easy access to raw materials like paper pulp and wood, essential for carton box manufacturing.
- Karnataka has a large number of skilled workers who are adept in the manufacturing industry. With the increasing industrialization, the availability of skilled labor is likely to remain high.
- Karnataka has several policies and schemes that support the growth of manufacturing industries. The state government is also actively promoting the manufacturing sector by providing subsidies and incentives to businesses.



- The carton box industry has an established market in Karnataka with a growing demand for packaging products. This ensures a consistent market for the business.

II. Weaknesses

- The carton box manufacturing industry in Karnataka is highly competitive, with several established players already present in the market. New entrants may face challenges in capturing a significant market share.
- The carton box manufacturing industry is dependent on the availability of raw materials. Any disruption in the supply of raw materials can severely impact the business.
- The availability of infrastructure like roads, transportation, and power supply can affect the business's operations and lead to delays in product delivery.

III. Opportunities

- With the increasing trend of online shopping, there is a growing demand for packaging products, especially carton boxes, to transport goods. This presents a significant opportunity for the business to expand its customer base.
- Karnataka has a well-established export market for goods, including packaging products. The business can explore export opportunities to expand its customer base and increase its revenue.
- The carton box manufacturing industry has the potential to diversify its product offerings by producing other packaging materials like corrugated boxes, paper bags, and more.



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.
- The cost of raw materials like paper pulp and wood can fluctuate due to market conditions, which can impact the business's profitability.
- The carton box manufacturing industry is under scrutiny due to its environmental impact, and businesses may face challenges in complying with regulations and meeting the demands of eco-conscious customers.
- 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.

Ecosystem Support from Project

- **Employment generation:** The project can create job opportunities for people in the region. This can help in boosting the local economy and reducing unemployment.
- **Local sourcing of raw materials:** The project can source raw materials, such as wood pulp and recycled paper, from local suppliers. This can help in supporting the local economy and reducing transportation costs.
- **Waste management:** The project can generate a significant amount of waste material, such as scrap paper and cardboard. By implementing proper waste management practices, the project can reduce its environmental impact and even potentially create new revenue streams from waste recycling or disposal services.



- **Support for other industries:** The carton box manufacturing project can support other industries, such as the agriculture industry, by providing packaging solutions for their products. This can help in reducing product damage during transportation and storage.
- **Innovation:** The project can stimulate innovation in the region by investing in research and development of new packaging solutions or by collaborating with other industries to develop new products or services.

The carton box manufacturing project has the potential to provide significant ecosystem support for the region by generating employment opportunities, supporting local sourcing, promoting waste management, supporting other industries, and fostering innovation.

12. THE END PRODUCTS PRODUCED FROM THE MACHINE





13. FINANCIALS

CASH FLOW STATEMENT

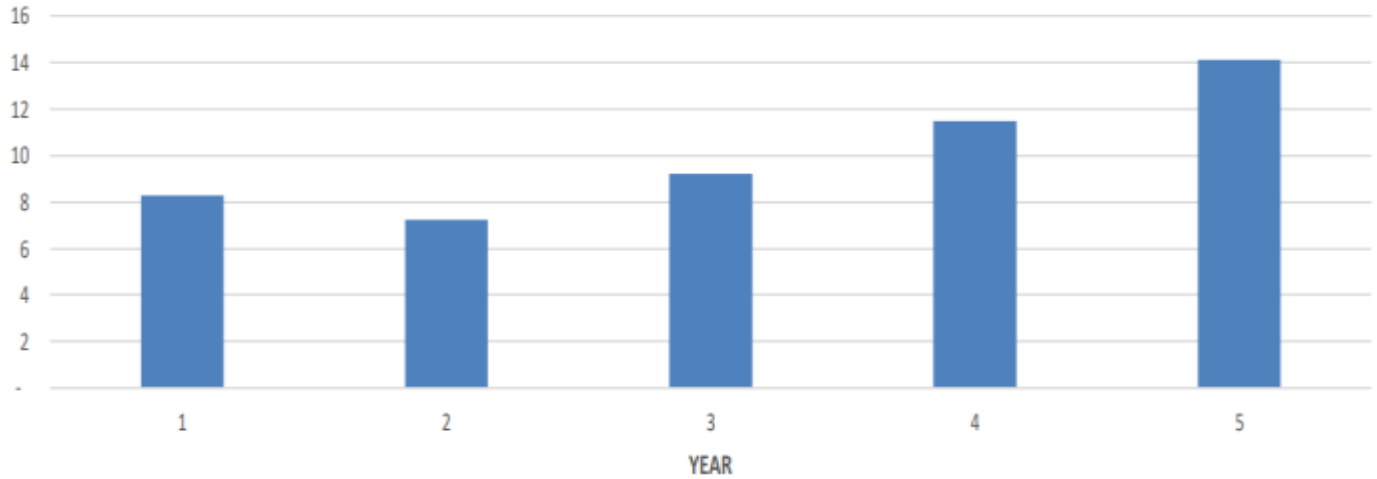
| Particulars | Year | | | | |
|--|------------------|------------------|------------------|------------------|------------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| REVENUE FROM SALE OF NATURAL PESTICIDES AND FERTILIZERS | | | | | |
| No. of working days in a Year | 300 | 300 | 300 | 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 kgs per day | 100 | 100 | 100 | 100 | 100 |
| Production in KGs | 90% | 90% | 90% | 90% | 90% |
| Utilisation of the Capacity (%) | 60% | 65% | 70% | 75% | 80% |
| Production during the year (in KGs) | 16,200 | 17,550 | 18,900 | 20,250 | 21,600 |
| Rate per KG | 250 | 275 | 303 | 333 | 366 |
| Gross Revenue earned per annum - A | 40,50,000 | 48,26,250 | 57,17,250 | 67,38,188 | 79,06,140 |
| COST OF RAW MATERIALS | | | | | |
| Consumption of Raw Materials | 18,000 | 19,500 | 21,000 | 22,500 | 24,000 |
| Rate per KG | 150 | 165 | 182 | 200 | 220 |
| Total Cost of Raw Material per annum - B | 27,00,000 | 32,17,500 | 38,11,500 | 44,92,125 | 52,70,760 |
| EXPENDITURE | | | | | |
| Salaries and Wages | 7,20,000 | 7,92,000 | 8,71,200 | 9,58,320 | 10,54,152 |
| Electricity Charges | 1,08,000 | 1,18,800 | 1,30,680 | 1,43,748 | 1,58,123 |
| Transportation and Travelling | 36,000 | 39,600 | 43,560 | 47,916 | 52,708 |
| Rent | 1,20,000 | 1,32,000 | 1,45,200 | 1,59,720 | 1,75,692 |
| Packaging and Promotion Expenses | 36,000 | 39,600 | 43,560 | 47,916 | 52,708 |
| Miscellaneous Expense | 24,000 | 26,400 | 29,040 | 31,944 | 35,138 |
| Total Expenditure - C | 10,44,000 | 11,48,400 | 12,63,240 | 13,89,564 | 15,28,520 |
| Net Profit before Interest /Cash Flow (A-B-C) | 3,06,000 | 4,60,350 | 6,42,510 | 8,56,498 | 11,06,860 |

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 | 3,06,000 | 4,60,350 | 6,42,510 | 8,56,498 | 11,06,860 |
| Loan Repayment | 38,197 | 82,035 | 90,177 | 99,127 | 1,08,965 |
| Interest on Term Loan | 39,008 | 32,618 | 24,476 | 15,526 | 5,688 |
| Debt to be Served | 77,205 | 1,14,653 | 1,14,653 | 1,14,653 | 1,14,653 |
| Debt Service Coverage Ratio | 4 | 4 | 6 | 7 | 10 |



DEBT SERVICE COVERAGE RATIO



BREAKEVEN ANALYSIS

Investment Value Including Margin Rs. 465000

| Year ended | Year 1 Projected | Year 2 Projected | Year 3 Projected | Year 4 Projected | Year 5 Projected |
|---|------------------------------|---------------------|---------------------|---------------------|---------------------|
| Cash Flow as per Statement of Income | 3,06,000 | 4,60,350 | 6,42,510 | 8,56,498 | 11,06,860 |
| Less : Interest on Loan | 39,008 | 32,618 | 24,476 | 15,526 | 5,688 |
| Less : Estimated Drawings/Personal Expenses | 1,53,000 | 2,30,175 | 3,21,255 | 4,28,249 | 5,53,430 |
| Net Cash Flow | 1,13,992 | 1,97,557 | 2,96,779 | 4,12,723 | 5,47,742 |
| Cumulative Cash Flow | 1,13,992 | 3,11,549 | 6,08,328 | 10,21,051 | 15,68,792 |
| Break Even Investment (in years) | 2 Year and 6.2 Months | | | | |



DETAIL REPAYMENT SCHEDULE

| Year | Quarter | Loan Instalment | Principal Payment | Loan Outstanding | Interest at 9.5% | Cumulative Interest |
|--------------|---------|-----------------|-------------------|------------------|------------------|---------------------|
| 1 | 1 | 9,939 | - | 4,18,500 | 9,939 | 39,008 |
| | 2 | 9,939 | - | 4,18,500 | 9,939 | |
| | 3 | 28,663 | 18,872 | 3,99,628 | 9,791 | |
| | 4 | 28,663 | 19,324 | 3,80,303 | 9,339 | |
| 2 | 1 | 28,663 | 19,787 | 3,60,516 | 8,876 | 32,618 |
| | 2 | 28,663 | 20,261 | 3,40,256 | 8,403 | |
| | 3 | 28,663 | 20,746 | 3,19,510 | 7,918 | |
| | 4 | 28,663 | 21,242 | 2,98,268 | 7,421 | |
| 3 | 1 | 28,663 | 21,751 | 2,76,518 | 6,913 | 24,476 |
| | 2 | 28,663 | 22,271 | 2,54,246 | 6,392 | |
| | 3 | 28,663 | 22,804 | 2,31,442 | 5,859 | |
| | 4 | 28,663 | 23,350 | 2,08,091 | 5,313 | |
| 4 | 1 | 28,663 | 23,909 | 1,84,182 | 4,754 | 15,526 |
| | 2 | 28,663 | 24,482 | 1,59,700 | 4,182 | |
| | 3 | 28,663 | 25,068 | 1,34,633 | 3,595 | |
| | 4 | 28,663 | 25,668 | 1,08,965 | 2,995 | |
| 5 | 1 | 28,663 | 26,282 | 82,682 | 2,381 | 5,688 |
| | 2 | 28,663 | 26,911 | 55,771 | 1,752 | |
| | 3 | 28,663 | 27,556 | 28,215 | 1,108 | |
| | 4 | 28,663 | 28,215 | - | 448 | |
| Total | | 5,35,817 | 4,18,500 | | 1,17,317 | 1,17,317 |



Designated Contact Details for this project

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