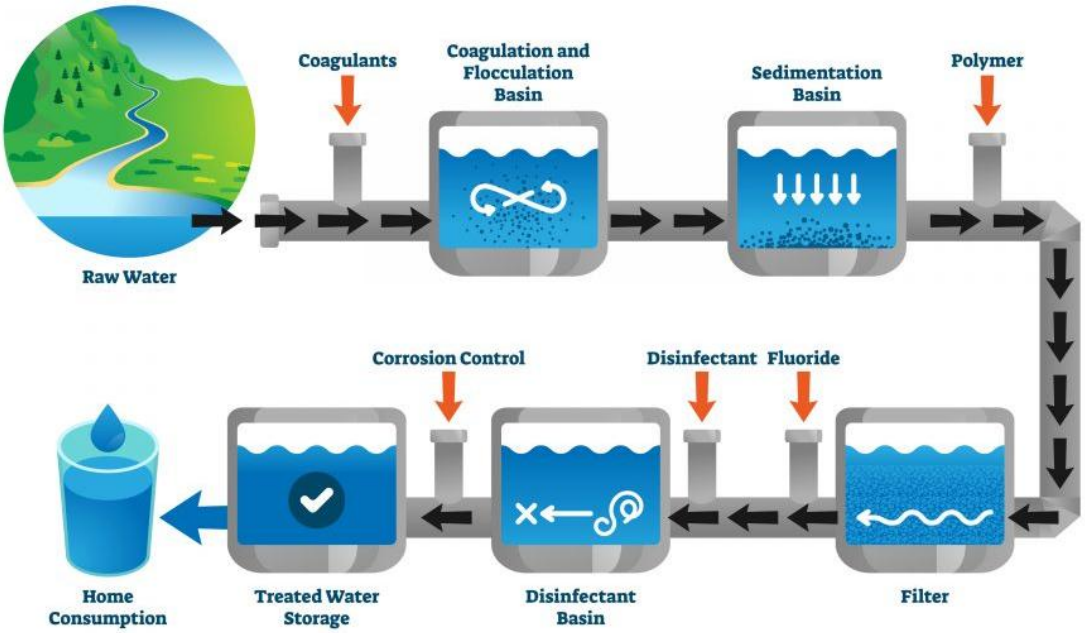
Detailed Project Report

Water Purifier Unit



By

VISION
KARNATAKA FOUNDATION

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1. 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.

2. 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.

3. OVERVIEW OF THE JLG LIST OF MEMBERS

- Name of the district: Kodagu
- Name of the Taluk: Kodagu
- Name of the JLG: SVSY
- Number of Members: About 10

4. NAME OF PRODUCT AND TECHNOLOGY

Purified Water:

Purified water is water that has been treated to remove impurities and contaminants. This process usually involves filtering the water through activated carbon, reverse osmosis, or distillation. Purified water is typically free of bacteria, viruses, chemicals, and minerals that can be harmful to human health. It is also odourless, tasteless, and colourless, making it ideal for use in various applications, including drinking, cooking, and medical procedures. The quality of purified water is often measured by its purity level, which can range from 99% to 100%. Purified water is available in different forms, including bottled water, water coolers, and water filters. Its widespread availability has made it an essential commodity in many parts of the world.

5. DELIVERABLES AND MARKET OF THE PRODUCT

- Clean, safe, and healthy drinking water for humans and animals.
- High quality water for industrial processes, such as in the manufacturing of pharmaceuticals, electronics, and food products.
- Reliable and efficient water supply for irrigation and agriculture.
- Improved taste and odor of water for improved user experience.

- Increased lifespan and efficiency of appliances that use water, such as coffee makers, washing machines and dishwashers.
- Enhanced safety of medical procedures that require sterile water, such as dialysis and surgeries.
- Reduced environmental impact from the disposal of contaminated water and packaging materials.
- Improved hygiene in areas with poor sanitation by providing clean water for washing and cleaning.
- Increased availability of water for emergency situations such as natural disasters, where clean water may be in short supply.

- **Project Assumptions:** This model DPR for Water Purifier 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 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 Water Purification unit:	600-1000 liters	
Utilization of capacity:	Year 1	Implementation
	Year 2	65%
	Year 3	70%
	Year 4	75%
	Year 5 ONWARDS	80%
Working days per year:	300 days	
Working hours per day:	8-10 hours	
Average price of raw material:	Rs.5-10/ liter	
Average sale price of product	Rs.12-20/ liter	

Assumptions of Raw materials/ Production / sales

Machineries:

Keten Reverse Osmosis Water Purification Machine
Capacity: 1000 liters/hr
Price: Rs. 2.50 lakhs/-
Type of Purification: Reverse Osmosis
Material: Stainless Steel
Keten RO Systems Nagpur, Maharashtra

Market Linkage

- Water Suppliers
- Packaged drinking water manufacturer
- Food Industry
- Retailers
- Grocery Stores
- Departmental stores & Supermarkets
- Quick Commerce

6. ROLE OF EACH OF THE JLG MEMBERS

How JLG will participate:

- 2 persons will be used to procurement of raw materials
- 2 persons for production
- 2 persons for the logistics & sales
- 2 persons for sieving
- 2 persons for maintenance of machines

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.
1	Bank Loan	4,00,000
2	JLG contribution	1,00,000
3	**Total**	**5,00,000**

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.
- Purified water is free of impurities, contaminants, and minerals, making it a high-quality source of water.

- Purification processes can remove unpleasant tastes and odors from water, improving its overall palatability.
- Purified water can be used in a wide range of applications, including drinking, cooking, and medical procedures.
- Purified water may be beneficial for individuals with certain medical conditions that require them to avoid minerals or other impurities found in tap water.
- The cluster members are having good coordination among themselves and are serious about resolving cluster problems.

II. Weakness

- Quality control issues, as some manufacturers may use low-quality ingredients, which can lead to a decrease in the quality of the final product.
- Purified water can be more expensive than tap water or other bottled water products, due to the additional purification processes and materials required.
- The production and distribution of purified water can have a negative impact on the environment, due to the energy consumption required and the potential for plastic waste.
- Purified water may lack beneficial minerals that are found in natural sources of water.

III. Opportunities

- There is a growing demand for purified water, as consumers become more health-conscious and concerned about the quality of their drinking water.
- Producers can innovate by developing new purification methods or packaging designs to differentiate themselves from competitors and meet the needs of consumers.

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 is significant competition in the bottled water market, with many different brands and types of water available to consumers.

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

13. FINANCIAL

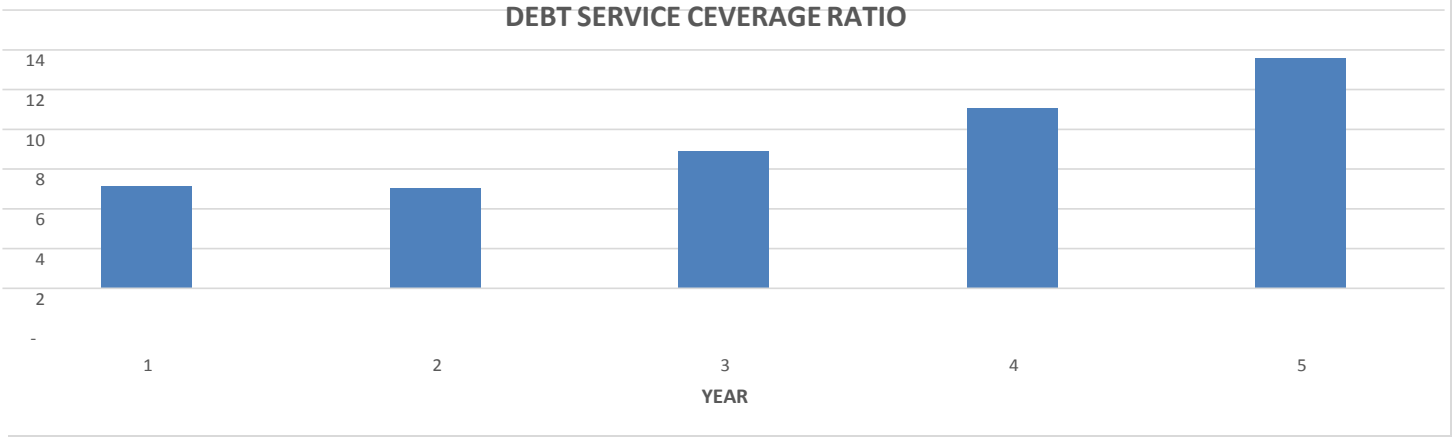
CASH FLOW STATEMENT

Year / Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE FROM SALE OF PURIFIED WATER					
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 litters per day	1,000	1,000	1,000	1,000	1,000
Production in litters	95%	95%	95%	95%	95%
Utilisation of the Capacity (%)	60%	65%	70%	75%	80%
Production during the year (in litters)	1,71,000	1,85,250	1,99,500	2,13,750	2,28,000
Rate per litters	12	13	15	16	18
Gross Revenue earned per annum - A	**20,52,000**	**24,45,300**	**28,96,740**	**34,14,015**	**40,05,778**
COST OF RAW MATERIALS					
Consumption of Raw Materials	1,80,000	1,95,000	2,10,000	2,25,000	2,40,000

Rate per litters	5	6	6	7	7
Total Cost of Raw Material per annum - B	**9,00,000**	**10,72,500**	**12,70,500**	**14,97,375**	**17,56,920**
EXPENDITURE					
Salaries and Wages	4,32,000	4,75,200	5,22,720	5,74,992	6,32,491
Electricity Charges	1,44,000	1,58,400	1,74,240	1,91,664	2,10,830
Transportation and Travelling	30,000	33,000	36,300	39,930	43,923
Rent	1,20,000	1,32,000	1,45,200	1,59,720	1,75,692
Packaging and Promotion Expenses	30,000	33,000	36,300	39,930	43,923
Repairs and Maintenance	72,000	79,200	87,120	95,832	1,05,415
Miscellaneous Expense	25,000	27,500	30,250	33,275	36,603
Total Expenditure - C	**8,53,000**	**9,38,300**	**10,32,130**	**11,35,343**	**12,48,877**
Net Profit before Interest /Cash Flow (A-B-C)	**2,99,000**	**4,34,500**	**5,94,110**	**7,81,297**	**9,99,980**

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	**2,99,000**	**4,34,500**	**5,94,110**	**7,81,297**	**9,99,980**
Loan	28,750	61,747	67,875	74,611	82,016
Repayment	29,361	24,551	18,423	11,686	4,281
Interest on Term Loan					
Debt to be Served	**58,111**	**86,298**	**86,298**	**86,298**	**86,298**
Debt Service Coverage Ratio	5	5	7	9	12
AVERAGE DSCR			**8**		



BREAKEVEN ANALYSIS
Investment Value Including Margin
Rs. 350000

Year ended	Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected	Year 5 Projected
Cash Flow as per Statement of Income	2,99,000	4,34,500	5,94,110	7,81,297	9,99,980
Less : Interest on Loan	29,361	24,551	18,423	11,686	4,281
Less : Estimated Drawings/Personal Expenses	1,49,500	2,17,250	2,97,055	3,90,649	4,99,990
Net Cash Flow	**1,20,139**	**1,92,699**	**2,78,632**	**3,78,962**	**4,95,709**
Cumulative Cash Flow	**1,20,139**	**3,12,838**	**5,91,470**	**9,70,432**	**14,66,141**
Break Even Investment (in years)			**2 Year and 1.6 Months**		

Year	Quarter	Loan Installment	Principal Payment	Loan Outstanding	Interest at 9.5%	Cumulative Interest
1	1	7,481	-	3,15,000	7,481	
	2	7,481	-	3,15,000	7,481	
	3	21,574	14,205	3,00,795	7,369	
	4	21,574	14,545	2,86,250	7,029	29,361
2	1	21,574	14,893	2,71,356	6,681	
	2	21,574	15,250	2,56,107	6,325	
	3	21,574	15,615	2,40,492	5,960	
	4	21,574	15,989	2,24,503	5,586	24,551
3	1	21,574	16,371	2,08,132	5,203	
	2	21,574	16,763	1,91,368	4,811	
	3	21,574	17,165	1,74,203	4,410	
	4	21,574	17,576	1,56,628	3,999	18,423
4	1	21,574	17,996	1,38,632	3,578	
	2	21,574	18,427	1,20,205	3,147	
	3	21,574	18,868	1,01,336	2,706	
	4	21,574	19,320	82,016	2,255	11,686
5	1	21,574	19,782	62,234	1,792	
	2	21,574	20,256	41,978	1,319	
	3	21,574	20,741	21,237	834	
	4	21,574	21,237	-	337	4,281
Total		**4,03,303**	**3,15,000**		**88,303**	**88,303**

DETAIL REPAYMENT SCHEDULE

Designated Contact Details for this project

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