

# PROJECT REPORT

Of

# VERMICOMPOST

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Vermicompost making Unit**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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# PROJECT REPORT

# VERMI COMPOST

## PURPOSE OF THE DOCUMENT

**T**his particular pre-feasibility is regarding 'Vermi Compost' comes under Agriculture sector. The objective of the pre-feasibility is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve this objective; the document covers various aspects of the project concept development, startup, marketing, and finance and business management

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**Introduction:** Vermi-compost is a measure produced by composting waste materials by using earthworm. Earthworm digest as low as two percent of the food consumed by it and hence excrete about ninety eight percent of food consumed. The excreta of earthworm is always considered as a natural manure. The modern method of controlled feeding and collection of excreta is known as vermin-composting. It has already become a popular process of manufacturing Bio-fertilizer and in some places like Bangalore municipal waste is processed by Vermi-composting techniques.

**Advantage** : vermicompost product which is about the organic fertilizer made from the worm dropping.: Advantage 1. repair soil PH 2. cheaper than chemical fertilizer 3. Save environment 4. fasten the plant growth 5. give good quality and organic product price

**Market:** With massive propagation of Chemical fertilizer and pesticides in last few decades demerits of such fertilizer and pesticides came into focus of the world. It was found that such fertilizers and pesticides harm not only human health but also the environment and the very soil on which agriculture is done. Alternatives like manure and compost are therefore found to be better fertilizer. Balanced

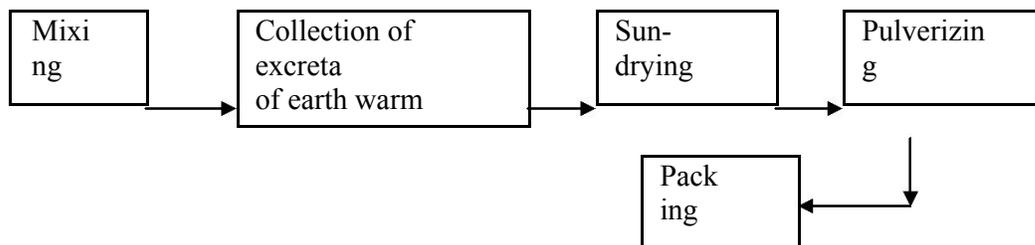
fertilizer can be achieved by vermi-composting where right balance of N.P. and K can be ensured. Other natural fertilizers find it difficult. Thus vermi-compost is one step ahead in natural fertilizers. By mixing Neem and Tobacco extracts with others vermi-compost can be made to serve properties of fertilizer as well as pesticide.

Vermicompost is propagated by Spice Board and Khadi & Village Industries Commission. These Agencies are not promoting NPK Balanced vermicomposting, though it is possible within the technology propagated. Plantations are bulk consumers of vermicomposts. Tea gardens and Rubber plantations in the state prefer bio-fertilizer including compost, manure and vermicompost.

**Capacity:** The unit shall need to work 365 days for three shifts. Worker shall however work for single shift per day, where they will mix the feed in tank, collect and pack vermicompost. As care need not be taken every-day all unskilled workers shall be employed on daily contract basis. The annual installed capacity is estimated at 30 Tonnes of vermicompost.

**Process:** The process of vermicomposting involve preparation of feedstock in vermicomposting pits, mixing them occasionally, collection of excreta of earthworms by brush, sundrying vermicompost to semi-dry condition, pulverizing and packing.

**Process Flow:**



**Raw Materials:** Though bio-degradable solid wastes of kitchen, farm, etc. enable one to produce vermicompost, these become rich in N but slightly deficient in P & K. Therefore, mixing of materials rich in P & K helps. Also to enhance porosity of the raw materials use of Saw dust/cut hay are done. These are available locally. The unit annually required raw materials will be Rs.2,20,800/-

**Water:** Vermicomposting calls for keeping solid waste mix wet for better health of earthworms. Daily sprinkling calls for 60 Ltrs. of water. Such water is readily available in vermicomposting sites.

**Power:** The process do not call for any power or fuel

**Manpower:** One unskilled person can take care of mixing, collection of vermicompost and its sun drying. Breaking and packing calls for two more unskilled workers. Marketing and accounting shall however call for regular workers. The cost of manpower shall be Rs.31,000/- per quarter.

**Capital Cost estimate:**

1.	Land admeasuring 1728 sq.ft.		<b>Own</b>
2.	Shed and vermicomposting tanks	<b>Rs.</b>	<b>40,000/-</b>
3.	Water installation	<b>Rs.</b>	<b>7,500/-</b>
4.	Electrification	<b>Rs.</b>	<b>7,500/-</b>
5.	Office furniture & equipments	<b>Rs.</b>	<b>20,000/-</b>
6.	Provision for contingency	<b>Rs.</b>	<b>7,500/-</b>
7.	Preliminary & pre-operative expenses	<b>Rs.</b>	<b>2,500/-</b>
8.	<b><u>Working Capital</u></b>		

a)	Raw Material	Rs. 2,20,800/-
b)	Repair & Maintenance:	Rs. 500/-
c)	Salary & Wages	Rs. 31,000/-
d)	Utilities	Rs. 500/-
e)	Administrative expenditure	Rs. 12,500/-
f)	Selling expenses	Rs. 1,700/-

**Total working capital: Rs. 2,67,000/-**

**Total Project Cost: Rs. 3,52,000/-**

**Means of Finance**

	<u>Urban</u>	<u>Rural</u>
1. Composite loan	2,46,400/-	2,11,200/-
2. Promoters Capital	17,600/-	17,600/-
3. Subsidy	88,000/-	1,23,200/-
4. Debt Equity ratio	2.33:1	1.50:1

**Profitability:**

Sl.No.	Description	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year
1.	Capacity utilized as percent of installed capacity	60	70	80	80	80
2.	Annual Sales Realization in Rs.	21,00,000	24,50,000	28,00,000	28,00,000	28,00,000
3.	<b>Annual Costs in Rs.</b>					
a)	Raw Materials	15,89,760	18,54,720	21,19,680	21,19,680	21,19,680
b)	Utilities	3,600	4,200	4,800	4,800	4,800
c)	Selling expenses	12,240	14,280	16,320	16,320	16,320
	<b>Variable Cost</b>	<b>16,05,600</b>	<b>18,73,200</b>	<b>21,40,800</b>	<b>21,40,800</b>	<b>21,40,800</b>
d)	Wages & Salaries	2,23,200	2,60,400	2,97,600	2,97,600	2,97,600
e)	Administrative expenses	90,000	1,05,000	1,20,000	1,20,000	1,20,000
f)	Depreciation	8,500	8,500	8,500	8,500	8,500

g)	Interest on Composite Loan	28,302	22,892	15,816	9,157	24,97
	Fixed & Semi Variable Cost	3,59,002	3,96,792	4,41,916	4,35,257	4,28,597
<b>4.</b>	<b>Total Cost</b>	<b>19,64,602</b>	<b>22,69,992</b>	<b>25,82,716</b>	<b>25,76,057</b>	<b>25,69,397</b>
<b>5.</b>	<b>Annual Profit</b>	<b>1,35,398</b>	<b>1,80,008</b>	<b>2,17,284</b>	<b>2,23,943</b>	<b>2,30,603</b>
<b>6.</b>	<b>Return on Investment</b>	<b>38.46%</b>	<b>51.13%</b>	<b>61.12%</b>	<b>63.62%</b>	<b>65.51%</b>
<b>7.</b>	<b>Return on sales</b>	<b>6.45%</b>	<b>7.35%</b>	<b>7.76%</b>	<b>7.99%</b>	<b>8.2%</b>
8.	Annual contribution	4,94,400	5,76,800	6,59,200	6,59,200	6,59,200
9.	Break Even Point as percent of capacity	43.56%				
10.	Cash accrual	1,43,898	1,88,508	2,25,784	2,32,443	2,39,103
11.	Debt Servicing Capacity	1,72,200	2,11,400	2,41,600	2,40,943	2,41,600
12.	Repayment of Composite Loan	39,957	46,616	53,276	53,276	53,276
13.	Debt Serviced	68,259	69,508	69,092	62,433	55,773
<b>14.</b>	<b>Pay Back Period</b>	<b>2 year 6 month 7 days</b>				
<b>15.</b>	<b>Debt Service Coverage Ratio</b>	<b>2.52:1</b>				

(Rs. In  
Thousands)

**Cash Flow Statement:**

Sl. No.	Description	Pre-operative Period	Operating Years				
			First	Second	Third	Fourth	Fifth
1.	Increase in Promoter's contribution	17,600	-	-	-	-	-
2.	Increase in Term loan	2,46,400	-	-	-	-	-
3.	Subsidy	88,000	-	-	-	-	-
4.	Depreciation	-	8,500	8,500	8,500	8,500	8,500
5.	Profit before interests	-	1,63,700	2,02,900	2,33,100	2,33,100	2,33,100
<b>A.</b>	<b>TOTAL SOURCES</b>	<b>3,52,000</b>	<b>4,39,200</b>	<b>2,11,400</b>	<b>2,41,600</b>	<b>2,41,600</b>	<b>2,41,600</b>
5.	Increase in capital investment	3,52,000	-	-	-	-	-
6.	Increase in working capital	-	2,67,000	-	-	-	-
7.	Interest	-	28,302	22,892	15,816	9,157	2,497
8.	Repayment of Term Loan	-	39,957	46,616	53,276	53,276	53,275
<b>B.</b>	<b>TOTAL DISPOSALS</b>	<b>3,52,000</b>	<b>3,35,259</b>	<b>69,508</b>	<b>69,092</b>	<b>62,433</b>	<b>55,773</b>
<b>C.</b>	<b>OPENING BALANCE</b>	<b>NIL</b>	<b>NIL</b>	<b>1,03,941</b>	<b>2,45,833</b>	<b>4,18,341</b>	<b>5,97,508</b>
<b>D.</b>	<b>NET SURPLUS</b>	<b>NIL</b>	<b>1,03,941</b>	<b>1,41,892</b>	<b>1,72,508</b>	<b>1,79,167</b>	<b>1,85,828</b>
<b>E.</b>	<b>CLOSING BALANCE</b>	<b>NIL</b>	<b>1,03,941</b>	<b>2,45,833</b>	<b>4,18,341</b>	<b>5,97,508</b>	<b>7,83,336</b>

**Projected Balance sheet:**

Sl.No.	Description	Amount in Rs. Thousands as at the end of the				
		1 <sup>st</sup> Yr.	2 <sup>nd</sup> Yr.	3 <sup>rd</sup> Yr.	4 <sup>th</sup> Yr.	5 <sup>th</sup> Yr.
1.	Capital Account of Promoter	17,600	1,52,998	3,33,006	5,50,290	7,74,233
2.	Surplus from operation	1,35,398	1,80,008	2,17,284	2,23,943	2,30,603
	<b>NET WORTH:</b>	<b>1,52,998</b>	<b>3,33,006</b>	<b>5,50,290</b>	<b>7,74,233</b>	<b>10,04,836</b>
3.	<b>Subsidy</b>	<b>88,000</b>	<b>88,000</b>	<b>88,000</b>	<b>88,000</b>	<b>88,000</b>
4.	Term loan outstanding	2,06,443	1,59,827	1,06,551	53,275	-
	<b>TOTAL LIABILITIES</b>	<b>4,47,441</b>	<b>5,80,833</b>	<b>7,44,841</b>	<b>9,15,508</b>	<b>10,92,836</b>
1.	Gross Block	85,000	85,000	85,000	85,000	85,000

	Less Depreciation	8,500	17,000	25,500	34,000	42,500
	<b>NET BLOCK</b>	<b>76,500</b>	<b>68,000</b>	<b>59,500</b>	<b>51,000</b>	<b>42,500</b>
2.	Working capital	2,67,000	2,67,000	2,67,000	2,67,000	2,67,000
3.	Cash & Bank Balance	1,03,941	2,45,833	4,18,341	5,97,508	7,83,336
	<b>TOTAL ASSETS</b>	<b>4,47,441</b>	<b>5,80,833</b>	<b>7,44,841</b>	<b>9,15,508</b>	<b>10,92,836</b>

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