



**BUSINESS PLAN**  
**INCOME GENERATING ACTIVITY – VERMI-COMPOST**

By

**Shiv Shakti- Self Help Group**



SHG/CIG Name	::	Shiv Shakti
VFDS Name	::	Bhaloon
Range	::	Nurpur
Division	::	Nurpur Divison

**Prepared under:**

Project for Improvement of Himachal Pradesh Forest Ecosystems Management  
& Livelihoods (JICA Assisted)

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## Background

Vermicomposting has been gaining a strong foothold in the country due to simple production techniques, ecological, economic and human health benefits associated with it. A significant number of vermin composting units have been set up by entrepreneurs, under government support/ with the technical guidance of Non-Governmental Organizations (NGOs), particularly in the southern and central parts of the country.

Vermicomposting has direct environmental and economic benefits as it contributes to the sustainable agriculture production and income of farmers significantly. There are a number of NGOs, Community Based Organizations (CBOs), Self-Help Groups (SHGs), Trusts etc. which are making concerted efforts to promote vermin composting technology due to its established economic and environmental advantages.

### Vermicomposting

Production of compost through rearing/using earth worms is called the vermin composting technology. Under this technology, earthworms eat biomass and excrete it in a digested form which is known as Vermicomposting or vermin compost. It is one of the simplest and cost effective methods for the production of composting for both the small and large scale farmers. Vermicompost production unit can be set up in any land which is not under any economic use but shady and free from water stagnation. The site should also be nearer to a water resource

Vermicomposting, rightly called "gold from garbage" is the major input in organic agriculture production. Owing to simple technology, many farmers are engaged in vermin composting production as it invigorates soil health; soil productivity thereby reduces the cost of cultivation.

There is a gradual increase in demand for vermin compost due to the high level of nutrient contents.

### 1. Description of SHG/CIG

SHG/CIG Name	::	Shiv Shakti
VFDS	::	Bhaloon
Range	::	Nurpur
Division	::	Nurpur Divison
Village	::	Shiv Shakti
Block	::	Khanni
District	::	Kangra

Total No. of Members in SHG	::	14
Date of formation	::	
Bank a/c No.	::	
Bank Details	::	The Kangra Central Co-Operative bank
SHG/CIG Monthly Saving	::	50 rs
Total saving		
Total inter-loaning		1%
Cash Credit Limit		-
Repayment Status		-

## 2. Beneficiaries Detail:

Sr.no	Name Of Candidate	Designation	Age	Category
1	Reena Devi W/O Naresh Kumar	President	43	Gen
2	Sonu Devi W/O Bhishan das	Secretary	38	Gen
3	Monu Devi W/O Nanak Chand	Treasurer	35	SC
4	Shami sharma W/O Sanjeev Sharma	Member	30	Gen
5	Neelam Kumari W/O Bhuri Singh	Member	45	SC
6	Surindra Devi W/O daljeet singh	Member	37	SC
7	Guddo Devi W/O mashu Ram	Member	50	SC
8	Suman Devi W/O Kamal singh	Member	40	Gen
9	Seema Devi W/O Pinka Ram	Member	30	Gen
10	Anita W/O Om Parkash	Member	49	Gen
11	Rachana Devi W/O suresh Kumar	Member	38	Gen
12	Shivani Devi W/PO Rohit Kumar	Member	35	Gen
13	Rekha Devi W/O Sukhwinder	Member	32	Gen

14	Rimpal Sharma w/O Late Sh. Rattan Chand	Member	32	Gen
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### 3. Geographical details of the Village

3.1	Distance from the District HQ	::	95Km
3.2	Distance from Main Road	::	500m
3.3	Name of local market & distance	::	Nurpur- 10 Km And Local Forest Dept.
3.4	Name of main market & distance		Nurpur- 10 Km And Local Forest Dept
3.5	Name of main cities & distance		Nurpur- 10 Km And Local Forest Dept
3.6	Name of main cities where product will be sold/ marketed	::	Nurpur- 10 Km And Local Forest Dept

### 4. Description of Product related to Income Generating Activity

4.1	Name of the Product	::	Vermicomposting
4.2	Method of product identification	::	This activity has been collectively decided by group members.
4.3	Consent of SHG/ CIG / cluster members	::	Yes

### 5. Description of Production Processes

Step		Description
Step-1	::	Processing involving collection of wastes, shredding, mechanical separation of the metal, glass and ceramics and storage of organic wastes.

Step-2	::	Pre digestion of organic waste for twenty days by heaping the material along with cattle dung slurry. This process partially digests the material and fit for earthworm consumption. Cattle dung and biogas slurry may be used after drying. Wet dung should not be used
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Step		Description
		for vermi-compost production.
Step-3	::	Preparation of earthworm bed. A concrete base is required to put the waste for vermi-compost preparation. Loose soil will allow the worms to go into soil and also while watering; all the dissolvable nutrients go into the soil along with water.
Step-4	::	Collection of earthworm after vermi-compost collection. Sieving the composted material to separate fully composted material. The partially composted material will be again put into vermi-compost bed.
Step-5	::	Storing the vermi-compost in proper place to maintain moisture and allow the beneficial microorganisms to grow.

## 6. Description of Production Planning

6.1	Production Cycle (in days)	::	90 days (three cycles in a year)
6.2	Manpower required per cycle (No.)	::	16
6.3	Source of raw materials	::	From household and own farms
6.4	Source of other resources	::	Open market
6.5	Raw material - quantity required per cycle (Kg) per member	::	2800 Kg per cycle
6.6	Expected production per cycle (Kg) per member	::	1400 Kg per cycle

## 7. Description of Marketing/ Sale

7.1	Potential market places	::	HP Forest Deptt.
7.2	Distance from the unit	::	Local market Use on own farm
7.3	Demand of the product in market place/s	::	HO Forest deptt is procuring huge vermi-compost for their nursery
7.4	Process of identification of market	::	PMU will facilitate the tie up of procurement of vermi-compost

		produced by SHG by HP Forest deptt.
7.5	Marketing Strategy of the product	SHG members will also explore the additional marketing options around their villages for better sale price in future.
7.6	Product branding	At CIG/SHG level product will be marketed by branding of respective CIG/SHG. Later this IGA may require branding at cluster level
7.7	Product "slogan"	"Shiv Shakti Nature Friendly"

## 8. SWOT Analysis

### ❖ Strength

- Activity is being already done by some SHG members
- Each of the SHG members are having cattle varying from 2 to 8 in each household
- Families of SHG members are cultivating high value crops & vegetables which offer adequate availability of raw materials i.e. farm organic wastes throughout the year.
- Raw material easily available at their farms
- Manufacturing process is simple
- Proper packing and easy to transport
- Other family members will also cooperate with beneficiaries
- Product self-life is long

### ❖ Weakness

- Effect of temperature, humidity, moisture on manufacturing process/product.
- Lack of technical know-how

### ❖ Opportunity

- Increasing demand of vermi-compost on account of awareness among farmers about organic and natural farming
- Application of vermi-compost on their own field will go a long way in improving and enhancing the soil health and production of quality farm produce which will offer better price.
- Best utilization of organic waste including household left outs of kitchens
- Potential for marketing tie up with HP Forest

### ❖ Threats/Risks

- Possibility of break of production cycle due to extreme weather
- Competitive market
- Level of commitment among beneficiaries towards participation in training/ capacity building & skill up-gradation

## 9. Description of Management among Members



**Production** – It will be taken care of by individual members including procurement of raw materials

- **Quality assurance** – Collectively
- **Cleaning & packaging** – Collectively
- **Marketing** – Collectively
- **Monitoring of the unit** – Collectively

## 10. Description of Economics

(Amount in actual Rs.)

S. No	Particulars	Units	Quantity / Nos.	Cost (Rs.)	Year 1	Year 2	Year 3	Year 4	Year 5
<b>A.</b>	<b>Capital Cost</b>								
<b>A.1</b>	<b>Construction of Pit and shed</b>								
1	Construction as well as labour cost including shed (Size will be of 10ftX4ftX2ft )	Per member	14	7000	98000	0	0	0	0
2	Erection of cover shed with iron angel	Per member	14	5000	70000				
	<b>Sub-total (A.1)</b>				<b>144000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>A.2</b>	<b>Machinery and equipment</b>								
3	Tools, equipment, weighing scale etc.	Per member	12	3000	36000	0	0	0	0
	<b>Sub-total (A.2)</b>				<b>36000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total Capital Costs (A.1+A.2)</b>				<b>168000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>B</b>	<b>Recurring Costs</b>								
4	Seed earthworm	Per Kg	12	550	6600	0	0	0	0
5	Cost of procurement of Slurry/dung/waste	Ton	96	1000	96000	100800	105840	111132	116688
6	Labour Cost	Per ton	48	800	38400	40320	42336	44452	46674
7	Packing materials	No.	16000	3	48000	50400	52920	55566	58344
8	Other handling charges	Per ton	48	165	7920	8316	8731	9167	9625
<b>C</b>	<b>Other charges</b>								
9	Insurance	L/S			0	0	0	0	0
10	Interest on loan	Per annum		2 per cent	2000	2000	2000	2000	2000
	<b>Total recurring costs</b>				<b>202220</b>	<b>211176</b>	<b>221734</b>	<b>232820</b>	<b>244461</b>
	<b>Total cost - Capital and recurring</b>				<b>472220</b>	<b>211176</b>	<b>221734</b>	<b>232820</b>	<b>244461</b>
<b>D</b>	<b>Income from vermi composting</b>								
11	<b>Sale of Vermicompost</b>	Tones	48	<b>8000</b>	<b>384000</b>	<b>403200</b>	<b>423360</b>	<b>444528</b>	<b>466754</b>
12	<b>Sale of earthworm</b>					<b>20000</b>	<b>40000</b>	<b>40000</b>	<b>40000</b>

13	<b>Total revenue</b>				<b>384000</b>	<b>423200</b>	<b>463360</b>	<b>484528</b>	<b>506754</b>
14	Net returns (D-C)				<b>182880</b>	<b>212024</b>	<b>241626</b>	<b>251700</b>	<b>262293</b>

**Note** – As labour work will be done by SHG members themselves and Slurry/dung/waste already available at their place and these materials will be not procured by them, therefore, recurring cost (Labour Cost, Cost of procurement of Slurry/dung/waste) can be deducted from total recurring cost.

### Economic Analysis

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital cost	<b>168000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Recurring cost	<b>202220</b>	<b>212331</b>	<b>222947</b>	<b>234094</b>	<b>245798</b>	
Total cost	441820	211176	221734	232820	244461	1352011
Total benefits	<b>384000</b>	<b>423200</b>	<b>463360</b>	<b>484528</b>	<b>506754</b>	<b>2261842</b>
<b>Net benefits</b>	-57820	212024	241626	251708	262293	909831
<b>Net present worth of cost @15 per cent</b>	<b>1352011</b>					
<b>Net present worth of benefits @15 per cent</b>	<b>2261842</b>					
<b>Benefit Cost Ratio</b>	<b>1.67</b>					

**Distribution of net profit** – As per share in production.

### 11. Inferences of Economic Analysis

- Pit size for each member has been planned at 10X4X2 ft for one pit.
- Cost of production of vermi-compost comes to Rs. 4.2 per Kg
- Sale of vermi-compost (conservative side) is Rs. 8 per Kg
- Net profit will be Rs. 3.8 per Kg
- It is proposed that each member will produce 5.4tonnes of vermi-compost every year resulting in production of 80 tones vermi-compost by all 16 members of SHG in one year.

- Cost of earthworm has been kept at Rs. 500.00 per kg
- During the second years onwards, there will be surplus earthworm for sale (as it will multiply during the process of production of vermi-compost)
- The vermi-compost making is a profitable IGA and can be taken up by the SHG members.

## 12. Fund requirement:

Sl. No.	Particulars	Total Amount (Rs)	Project support	SHG contribution
1	Total capital cost	168000	126000	42000
2	Total Recurring Cost	202220	0	202220
3	Trainings/ capacity building/skill up-gradation	12000	12000	0
	Total =	382220	138000	244220

### Note-

- **Capital Cost** - 75% of capital cost to be covered under the Project
- **Recurring Cost** - To be borne by the SHG/CIG.
- **Trainings/capacity building/ skill up-gradation** - To be borne by the Project

## 13. Sources of fund:

Project Support;	<ul style="list-style-type: none"> <li>• 75% of capital cost will be utilized for construction of pit (Size will be of (10ftX4ftX2ft)</li> <li>• Upto Rs 1 lakh will be parked in the SHG bank account.</li> <li>• Trainings/capacity building/ skill up-gradation cost.</li> </ul>	Procurement of materials for pit/construction of pit will be done by respective DMU/FCCU after following all codal formalities.
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SHG Contribution	<ul style="list-style-type: none"> <li>• 25% of capital cost to be borne by SHG, this include cost of shed/construction of shed.</li> <li>• Recurring cost to be borne by SHG</li> </ul>	
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#### 14. Bank loan repayment

If the loan is availed from bank, it will be in the form of cash credit limit and for CCL there is not repayment schedule; however, the monthly saving and repayment receipt from members should be routed through CCL.

- In CCL, the principal loan outstanding of the SHG must be fully paid to the banks once a year. The interest amount should be paid on a monthly basis.
- In term loans, the repayment must be made as per the repayment schedule in the banks.

#### 15. Trainings/Capacity Building/Skill Up-gradation

Trainings/capacity building/ skill up-gradation cost will be borne by project.

Following are some trainings/capacity building/ skill up-gradation proposed/needed:

- ➔ Project Orientation Group Formation/ Reorganization
- ➔ Group Concept and Management
- ➔ Introduction to IGA (General)
- ➔ Marketing and Business Plan Development
- ➔ Bank Credit Linkages & Enterprise Development
- ➔ Exposure Visit of SHGs/ CIGs – Within the State& Outside State

#### 16. Monitoring Mechanism

- ➔ Social Audit Committee of the VFDS will monitor the progress and performance of the IGA and suggest corrective action if need be to ensure operation of the unit as per projection.

- SHG should also review the progress and performance of the IGA of each member and suggest corrective action if need be to ensure operation of the unit as per projection.

## **Group Photo;-**



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