

# BUSINESS PLAN

## INCOME GENERATING ACTIVITY –Vermi-compost by Ekta - Self Help Group

SHG/CIG Name	::	Ekta
VFDS Name	::	Panesh
Range	::	Taradevi
Division	::	Shimla

Prepared under:



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

## Table of Contents

<b>Sl. No.</b>	<b>Particulars</b>	<b>Page/s</b>
1	Background	3
2	Description of SHG/CIG	4
3	Beneficiaries Detail	5
4	Geographical details of the Village	5
5	Description of product related to Income Generating Activity	6
6	Production Processes	6
7	Production Planning	7
8	Sale & Marketing	7
9	SWOT Analysis	8
10	Description of Management among members	8
11	Description of Economics	9-11
12	Inference of Economic Analysis	12
13	Fund Requirement	12
14	Sources of Fund	12
15	Bank Loan Repayment	13
16	Trainings/capacity Building / Skill up-gradation	13
17	Monitoring Method	13
18	Group Member Photos	14

## **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 vermicomposting 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 vermicomposting technology due to its established economic and environmental advantages.

## **Vermicomposting**

Production of compost through rearing/using earth worms is called the vermicomposting technology. Under this technology, earthworms eat biomass and excrete it in a digested form which is known as vermicomposting or vermicompost. 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 vermicomposting production as it invigorates soil health, soil productivity reduces the cost of cultivation.

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

- **Description of SHG/CIG**

SHG/CIG Name	::	Ekta
VFDS	::	Panesh
Range	::	Taradevi
Division	::	Shimla
Village	::	Talayal,
Block	::	Tuto
District	::	Shimla
Total No. of Members in SHG	::	15
Date of formation	::	June 2020
Bank a/c No.	::	252000100031181
Bank Details	::	PNB Kanda
SHG/CIG Monthly Saving	::	50/-
Total saving		6750/-
Total inter-loaning		5000/-
Cash Credit Limit		-
Repayment Status		-

- Beneficiaries Detail:**

Sl. No	Name	Father/ HusbName	Age	Category	Income Source	Address
1	Smt. Suman	Sh. Khem Raj	36	S.C.	Agriculture	Panesh
2	Smt. Manju Thakur	Sh. Pramod Thakur	45	Gen.	Agriculture	Panesh
3	Smt. Rama Thakur	Sh. Rameshwar	35	Gen.	Agriculture	Panesh
4	Smt. Sushma	Sh. Inder Pal	41	Gen.	Agriculture	Panesh
5	Smt. Reeta	Sh. Sanjay	37	Gen.	Agriculture	Panesh
6	Smt. Manju Thakur	Sh. Ram Chand	41	Gen.	Agriculture	Panesh
7	Smt. Geeta Thakur	Sh. Partap Thakur	53	Gen.	Agriculture	Panesh
8	Smt. Sunita Thakur	Sh. Aman Thakur	34	Gen.	Agriculture	Panesh
9	Smt. Manju Thakur	Sh. Amar Chand	42	Gen.	Agriculture	Panesh
10	Smt. Usha Thakur	Sh. Pal Chand	44	Gen.	Agriculture	Panesh
11	Smt. Surendra	Sh. Shankar Thakur	56	Gen.	Agriculture	Panesh
12	Smt. Tara Devi	Sh. Khem Chand	50	S.C.	Agriculture	Panesh
13	Smt. Asha Devi	Sh. Hari Chand	53	S.C.	Agriculture	Panesh
14	Smt. Radha Devi	Sh. Rajesh Kumar	44	Gen.	Agriculture	Panesh
15	Smt. Radhika Thakur	Sh. Aman Thakur	24	Gen.	Agriculture	Panesh

- Geographical details of the Village**

3.1	Distance from the District HQ	::	28Km
3.2	Distance from Main Road	::	7Km
3.3	Name of local market & distance	::	Ghanahatti, 7 Km
3.4	Name of main market & distance		Shimla, 28 Km
3.5	Name of main cities & distance		Shimla, 28 Km
3.6	Name of main cities where product will be sold/ marketed	::	HP Forest Deptt. & Shimla

- Description of Product related to Income Generating Activity**

4.1	Name of the Product	::	Vermicomposting
4.2	Method of product identification	::	This activity is being already done by some SHG members and has been collectively decided by group members
4.3	Consent of SHG/ CIG / cluster members	::	Yes

- 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 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.

- **Description of Production Planning**

6.1	Production Cycle (in days)	::	90 days (three cycles in a year)
6.2	Manpower required per cycle (No.)	::	1
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	::	1800 Kg per cycle
6.6	Expected production per cycle (Kg) per member	::	900 Kg per cycle

- **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	::	HO Forest deptt is procuring huge

	in market place/s		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"		"Nature Friendly"

- **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 offers 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

- **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

- **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 (Pit Size internal will be of 10ftX4ftX2ft )	Per member	15	6000	90000	0	0	0	0
2	Erection of cover shed with iron angal	Per member	15	4000	60000				
	<b>Sub-total (A.1)</b>				<b>150000</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	15	2000	30000	0	0	0	0
	<b>Sub-total (A.2)</b>				<b>30000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total Capital Costs (A.1+A.2)</b>				<b>180000</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	15	500	7500	0	0	0	0
5	Cost of procurement of Slurry/dung/waste	Tonnes	80	900	72000	75600	79380	83349	87516
6	Labour Cost	Per tonne	40	700	28000	29400	30870	32414	34034
7	Packing materials	No.	5000	2	10000	10500	11025	11576	12155
8	Other handling charges	Per tonne	40	150	6000	6300	6615	6946	7293
<b>C</b>	<b>Other charges</b>								
9	Insurance	L/S			0	0	0	0	0
10	Interest on loan	Per annum		2 percent	3000	3000	3000	3000	3000
	<b>Total recurring costs</b>				<b>126500</b>	<b>124800</b>	<b>130890</b>	<b>137285</b>	<b>143999</b>
	<b>Total cost - Capital and recurring</b>				<b>306500</b>	<b>124800</b>	<b>130890</b>	<b>137285</b>	<b>143999</b>
<b>D</b>	<b>Income from vermicomposting</b>								
11	Sale of vermicompost	Tonnes	40	6000	240000	252000	264600	277830	291722
12	Sale of earthworm					7500	15000	15000	15000
13	<b>Total revenue</b>				<b>240000</b>	<b>259500</b>	<b>279600</b>	<b>292830</b>	<b>306722</b>
14	Net returns (C-B)				113500	134700	148710	155546	162723

**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	180000	0	0	0	0	
Recurring cost	126500	124800	130890	137285	143999	
Total cost	306500	124800	130890	137285	143999	843473
Total benefits	240000	259500	279600	292830	306722	1378652
<b>Net benefits</b>	<b>-66500</b>	<b>134700</b>	<b>148710</b>	<b>155546</b>	<b>162723</b>	<b>535178</b>
<b>Net present worth of cost @15 per cent</b>	<b>843473</b>					
<b>Net present worth of benefits @15 per cent</b>	<b>1378652</b>					
<b>Benefit Cost Ratio</b>	<b>1.63</b>					

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

- 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. 3.2 per Kg
- Sale of vermi-compost (conservative side) is Rs. 6 per Kg
- Net profit will be Rs. 2.8 per Kg
- It is proposed that each member will produce 2.7 tonnes of vermi-compost every year resulting in production of 40 tonnes vermi-compost by all 15 members of SHG in one year.
- Cost of earthworm has been kept at Rs. 500.00 per kg
- During th second years onwards, there will be surplus earthwork 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.

- Fund requirement:**

Sl. No	Particulars	Total Amount (Rs)	Project support	SHG contribution
1	Total capital cost	180000	1,35,000	45,000
2	Total Recurring Cost	126500	0	126500
3	Trainings/ capacity building/skill up-gradation	50000	50000	0
	<b>Total =</b>	<b>3,56,500</b>	<b>1,85,000</b>	<b>1,71,500</b>

**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

- 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</li> </ul>	Procurement of materials for pit/construction of pit will be done by respective DMU/FCCU
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	<p>parked in the SHG bank account.</p> <ul style="list-style-type: none"> <li>• Trainings/capacity building/skill up-gradation cost.</li> </ul>	<p>after following all codal formalities.</p>
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>	

- **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.

- **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

- **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 members Photos –

