# **BUSINESS PLAN**

INCOME GENERATING ACTIVITY -Vermi-composting by



SHG/CIG Name	::	BADICH
VFDS Name	::	BADICH
Range	::	NERWA
Division	::	CHOPAL

Prepared under:



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

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### Background

Vermi-composting has been gaining popularity, mainly due to shift towards organic farming. There are ecological, economic and human health benefits associated with it. The use of vermin-compost in place of chemical fertilizers results into better soil health, balanced ratio of various minerals and good fertility and best quality crop production. Vermi-Composting has direct environmental and economic benefits by contributing to the sustainable agriculture and horticulture production and income of farmers significantly.

### Vermicomposting

Vermi-composting, rightly called Gold from Garbage is the measure input in organic farming. Vermi-composting is a process in which the earthworms convert the organic waste into manure rich in high nutritional content. Earthworms are commonly found living in soil, feeding on biomass and excreting it in a digested form. Earthworms feed on the organic waste materials and give out excreta in the form of "vermicasts" that are rich in nitrates and minerals such as phosphorus, magnesium, calcium and potassium. These vermicasts are used as fertilizers and they improve the soil quality. There is great demand for vermi-compost due to the high leval of nutrient content.

### Materials required

- 1. Water
- 2. Cow dung
- 3. Thatched roof
- 4. Soil or sand
- 5. Earthworms
- 6. Gunny bags
- 7. Organic biomass
- 8. Plastic or cemented tank
- 9. Dry straw and leaves collected from the fields
- 10. Biodegradable wastes collected from fields and kitchen

## 1. Description of SHG/CIG

SHG/CIG name	SHG Badich Vermicompost
VFDS	Badich
Range	Nerwa
Division	Chopal
District	Shimla
Total no. of members in SHG	7
Date of formation	03.04.2018
Bank account no.	04110110059258
Bank details	UCO Bank Chopal
SGH/CIG monthly saving	100 /-
Total saving	7300/-
Total inter-loaning	5000/-
Cash credit limit	-
Repayment status	-
Interest rate	2%

## 2. Benificiaries Detail:

Sr.	Name	Father/ Husband Name	Age	Education	Category	Income source	Contact No.
1.	Vidya Devi (President)		35	Literate	General BPL	Agriculture	9805601054
2.	Kubja Devi ( (Vice President)		53	8th	General	Agriculture	8894055063
3.	Seema Devi (Secretary)	W/O Virender	30	10 <sup>th</sup>	General	Agriculture	8628088510
4.	Asha Devi ( treasurer)	W/o Mehar Singh	45	Literate	General	Agriculture	9816919770
5.	Vidya Devi		36	8 <sup>th</sup>	General BPL	Agriculture	7807385795
6.	Rewta Devi	W/o Mast Ram	48	Literate	General	Agriculture	9805549867
7.	Priyanka	w/o Mukesh	25	10 <sup>th</sup>	General	Agriculture	7876274550

## 3. Geographical Details of The Village

3.1	Distance from the District HQ	::	125 Km
3.2	Distance from main Road	::	1 km
3.3	Name of local market & distance	::	Nerwa 12 km.
3.4	Name of main market & distance	::	Nerwa, Chopal, -12km, 25 Km,
3.5	Name of main cities & distance	::	Shimla 125 km
3.6	Name of main places where product will be sold/ marketed	::	Nerwa, Chopal and adjoining villages

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

1.1	Name of the Product	::	Vermi-compost
4.2	Method of product identification	::	The activity was shortlisted and finalized, keeping in view the great demand of Vermi compost, the area being an apple belt.
4.3	Consent of SHG/CIG/cluster members	::	Yes, the activity was collectively decided by the group.

## 5. Description of Production Process

Step 1	To prepare compost, either a plastic or a concrete tank/pit can be used. The size of the tank/pit depends upon the availability of raw materials, however as a standard, the sizing is being kept 10ftX4ftX2ft.
Step-2	Collect the biomass and place it under the sun for about 8-12 days. Now chop it to the required size using the cutter.
Step-3	Prepare a cow dung slurry and sprinkle it on the heap for quick decomposition.
Step-4	Add a layer $(2-3 \text{ inch})$ of cement concrete at the bottom of the tank/pit.
Step-5	Now prepare fine bedding by adding partially decomposed cow dung, dried leaves and other biodegradable wastes collected from fields and kitchen.  Distribute them evenly on the concrete layer.
Step-6	Continue adding both the chopped bio-waste and partially decomposed cow

	dung layer-wise into the tank/pit up to a depth of 0.5-1.0 ft.
Step-7	After adding all the bio-wastes, release the earthworm species over the interest and cover the compost mixture with dry straw or gunny bags.
Step-8	Sprinkle water on a regular basis to maintain the moisture content of the compost.
Step-9	Cover the tank/pit with a thatch roof to prevent the entry of ants, lizards, mouse, snakes, etc. and protect the compost from rainwater and direct sunshine.
Step-10	Have a frequent check to avoid the compost from overheating. Maintain proper moisture and temperature.
Step-11	Collection of earthworms after Verm compost collection. Sieving of the composted material to separate fully composted ready material. The partially material will be again put into Vermi-compost bed.
Step-12	Storage of vermi compost in proper place to maintain moisture and allow the beneficial microorganis 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.)	::	1
6.3	Source of raw materials	::	From household and own farms
6.4	Source of other material	::	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	::	900Kg per cycle

## 7. Description of Marketing/ Sale

7.1	Potential market places	::	HP Forest Deptt.		
			Local market		
			Use on own farm		
7.2	Distance from the unit	::	To be supplied to different locations		
7.3	Demand of the product in market place/s	::	HP Forest Deptt. is procuring huge vermi- compost for their nursery. Huge demand in locality for orchard use, area being an apple belt.		
7.4	Process of identification of market	::	PMU will facilitate the tie up of procurement of vermi-compost produced by SHG with 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"	::	"Let's go organic"

### 8. SWOT Analysis

### \* Strength

- ⇒ Each of the SHG members are having cattle varying from 2 to 4 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 shelf-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. Cost analysis(Amount in actual Rs.) Quantit Cost Particulars Year 5 Year 4 Units Year 1 Year 3 y / Nos. (Rs.) A. Capital Cost A. Construction of work-shed Hardware items, construction of pit Per (Size will be of 10ftX4ftX2ft) member Per Construction of cover shed member Sub-total (A.1) A. Machinery and equipment Per Tools, equipment etc. member Sub-total (A.2) Total Capital Costs (A.1+A.2) **Recurring Costs** B Seed earthworm Per Kg Cost of procurement of Tonnes Slurry/dung/waste Per tonne 5\* Labour Cost No. Packing materials Per tonne Other handling charges Page 8 of 12

C	Other charges								0
8	Insurance	L/S		0	0	0	0	0	0
9	Interest on loan	Per		0	0	0	0	0	0
	Total recurring costs				62150	61583	64662	67895	71290
	Total cost = Capital + recurring				146150	61583	64662	67895	71290
D	Income from vermicomposting			A BOOK					
12	Sale of vermicompost	Tonnes	21	6500	136500	150150	165165	181681	199849
13	Sale of earthworm					3500	7000	7000	7000
14	Total revenue				136500	153650	172165	188681	206849
15	Net returns (D-C)				74350	92067	107503	120786	135559

Note -

Activity on own land

All operation will be done by the members themselves

No extra labour cost, since all member will do the work themselv

#### Abstract of Cost/ Benefit

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Capital cost	84000	0	0	0	0
Recurring cost	62150	61583	64662	67895	71290
Total cost	146150	61583	64662	67895	71290
Total revenue	136500	153650	172165	188681	206849
Net profit	-9650	92067	107503	120786	135559

### 11. Gist of Economic Analysis

- Pit size for each member has been planned at 10X4X2 ft for one pit.
- Cost of production of vermi-compost has been estimated at Rs. 3.6 per Kg
- Sale of vermi-compost (conservative side) is proposed at Rs. 6 per Kg
- Net profit is estimated to be Rs. 6-3.6 = 2.4 per Kg
- It is proposed that each member will produce 3.3tonnes of vermi-compost every year resulting in production of 46.2tonnesvermi-compost by all 14 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 earthworms for sale (as it will multiply during the process of production of vermi-compost)
- The vermi-compost making is a profitable IGA and therefore has been taken up by the SHG members.

## 12. Fund requirement:

Sl. No.	Particulars	Total Amount (Rs)	Project support	SHG contribution
1	Total capital cost	84000	42000	42000
2	Total Recurring Cost	62150	0	62150
3	Trainings/ capacity building/skill up-gradation	30000	30000	
	Total =	176150	72000	104150

#### Note-

- Capital Cost 50% 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> <li>50% of capital cost will be utilized for construction of pit (Size will be of 10ftX4ftX2ft)</li> <li>Rs 1 lakh as revolving fund will be parked in the SHG bank account (should be utilized for taking bank loan in case of taking loan from bank) or as a revolving</li> </ul>	
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	fund.	
	Trainings/capacity building/ skill up-gradation cost.	
SHG contribution	50% of capital cost to be borne by SHG, this include cost of shed/construction of shed.	
	Recurring cost to be borne by  SHG	

#### 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 SHG 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 members Photos -



1			
The busine	ss plan of Self Help Group_	BADIC	Н.
for the IGA of VER	for approval. After long dis	was presented be cussion and thoughtful deliberion in the SHG and further	
Place: BADICH	21		
President- SHG. विद्या पूर्वी स्वय सहायका समूह बढ़ी - 2 प्रापक खद्दर है। जीमाल	Treasurer Vill. For dest Development Society	President  President  President  Village Forest Development  Society & C.D. & L. L.  Unit Barich	Varia Porest Rang
		DMU-Cum-DiMsi Chopal Forest Div	onal Forest Officer Ision, Chopal