

**BUSINESS PLAN**  
**INCOME GENERATING ACTIVITY – Vermi-Composting**  
by  
**Self Help Group Kafrona**



SHG/CIG Name	::	Self Help Group Kafrona
VFDS Name	::	Kafrona
Range	::	Bamta
Division	::	Chopal

Prepared under:



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



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## 1. Background

Vermi-composting has been gaining popularity, mainly due to shift towards organic farming. There is ecological, economic and human health benefits associated with it. The use of vermin-composting in place of chemical fertilizers results into better soil health, balanced ratio of various minerals and good fertility and best quality crop production. Vermicomposting 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. Vermicomposting is a process in which the earthworms convert in the organic waste into manure rich and 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 vermin-compost due to the high level 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.



2. Description of SHG/CIG

SHG/CIG name	Self Help Group Kafrona
VFDS	Kafrona
Range	Bamta
Division	Chopal
District	Shimla
Total no. of members in SHG	10
Date of formation	01-12-2017
Bank account no.	33899605872
Bank details	SBI
SGH/CIG monthly saving	100 /-
Total saving	2809
Total inter-loaning	-
Cash credit limit	-
Repayment status	-



### 3. Beneficiaries Detail:

Sr. no.	Name	Father/ Husband Name	Age	Education	Category	Income source	Address	Contact No
1.	Sheela Devi (President)	W/O Seeta Ram	34	10 <sup>th</sup>	S.C	Agriculture	Village Kafrona	6230467446
2.	Kewla Devi (Vice President)	W/O Kamal Chand	58	-	S.C	Agriculture	Village Kafrona	8988247763
3.	Beena Devi (Secretary)	W/O Hemraj	36	8 <sup>th</sup>	S.C	Agriculture	Village Kafrona	7650037959
4.	Kanta Devi (Treasurer)	W/O Sahi Ram	56	-	S.C	Agriculture	Village Kafrona	9816252758
5.	Sheela Devi	W/O Daulat Ram	43	-	S.C	Agriculture	Village Kafrona	9816000820
6.	Babli Devi	W/O Roshan Lal	56	-	S.C	Agriculture	Village Kafrona	9816778034
7.	Kanta Devi	W/O Mohan Lal	48	-	S.C	Agriculture	Village Kafrona	8894905149
8.	Pingla Devi	W/O Kedar Singh	40	-	S.C	Agriculture	Village Kafrona	9805772334
9.	Satya	W/O Prem Chand	57	-	S.C	Agriculture	Village Kafrona	8894070685
10	Guddi	W/O Parmod	38	8 <sup>th</sup>	S.C	Agriculture	Village Kafrona	7876247976

### 3. Geographical Details of The Village

3.1	Distance from the District HQ	::	150 km
3.2	Distance from main Road	::	1km
3.3	Name of local market & distance	::	Jhiknipul 20 km
3.4	Name of main market & distance	::	Chopal 50km, Nerwa 25 km
3.5	Name of main cities & distance	::	Shimla 150 km
3.6	Name of main places where product will be sold/ marketed	::	Nerwa, Jhiknipul ,Chopal,



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

4.1	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 Vermicompost, 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 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 mixture 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 microorganism 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 Department 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 - Collective



10. Cost analysis

S. No	Particulars	Units	Quantity / Nos.	Cost (Rs.)	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Capital Cost</b>									
A.	Construction of work-shed								
A.1	Construction of work-shed	Per member	10	6200	62000	0	0	0	0
1	Hardware items, construction of pit (Size will be of 10ftX4ftX2ft)	Per member	10	4200	42000				
2	Construction of cover shed	Per member	10	4200	104000	0	0	0	0
Sub-total (A.1)									
A.2	Machinery and equipment	Per member	10	2300	23000	0	0	0	0
2	Tools, equipment etc.	Per member	10	2300	23000	0	0	0	0
Sub-total (A.2)									
Total Capital Costs (A.1+A.2)									
<b>Recurring Costs</b>									
B	Seed earthworm	Per Kg	10	600	6000	0	0	0	0
3	Seed earthworm	Per Kg	10	600	6000	0	0	0	0
4	Cost of procurement of Slurry/dung/waste	Tonnes	42	900	37800	39690	41674	43757	45944
5*	Labour Cost	Per tonne	21	700	14700	15435	16206	17016	17866
6	Packing materials	No.	182	50	9100	9555	10032	10533	11059
7	Other handling charges	Per tonne	21	150	3150	3307	3472	3645	3827
<b>Other charges</b>									

(Amount in actual Rs.)

	Insurance	L/S		0	0	0	0	0	0
8	Interest on loan	Per annum		0	0	0	0	0	0
9	Total recurring costs			0	0	0	0	0	0
	Total cost = Capital + recurring			70750	67987	71384	74951	78696	
D	Income from vermicomposting			197750	67987	71384	74951	78696	
12	Sale of vermicompost	Tonnes	21	6400	134400	147840	162624	178886	196774
13	Sale of earthworm					3500	7000	7000	7000
14	Total revenue				134400	151340	169624	185886	203774
15	Net returns (D-C)				-63350	83353	98240	110935	125079

Note -

*Activity on own land*

*All operations to be done by the members themselves*

*No extra labour cost, since all member will do the work themselves.*

**Abstract of Cost/ Benefit**

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Capital cost	127000	0	0	0	0
Recurring cost	70750	67987	71384	74951	78696
Total cost	197750	67987	71384	74951	78696
Total revenue	134400	151340	169624	185886	203775
Net profit	-63350	83353	98240	110935	125079



## 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. 600.00 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	127000	95250	31750
2	Total Recurring Cost	70750	0	70750
3	Trainings/ capacity building/skill up-gradation	25000	25000	0
	Total =	222750	120250	102500

### 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>• 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 fund.</li> <li>• Trainings/capacity building/ skill up-gradation cost.</li> </ul>	Procurement of materials for pit/construction of pitwillbe 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 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.



# 17.Group Members Photos:-



① Sheela Devi  
President



② Kevola Devi  
Vice President



Beena Devi  
Secretary



Kamta Devi  
Treasurer



Sheela Devi



Babli Devi



Satiya Devi



Kamta Devi



Angladevi



Guddi

Prepared by: Narender Kumar FTU Co-Ordinator



# Certificate

The Business plan of Self Help Group Vermi Composting SHG Kafrona for the IGA of Vermi-Composting was presented before the general house of VFDS Kafrona for approval . After long discussion and thoughtful deliberations by the different members, the business plan was approved for adoption in the SHG and further implementation by the members of SHG.

Dated :-

Place:-

President SHG

प्रधान  
President V.P.D.S  
कृषि बपरीना

Treasurer / B.O.  
VFDS 'Kojone'

FTU Banara

Approved

DMU-CUM-Divisional Forest Officer  
Chopal Forest Division, Chopal

